MI COVID RESPONSE DATA AND MODELING UPDATE

June 14, 2022

Epidemiologic Surveillance: Key Messages

COVID-19 pandemic is surging in some parts of the globe and within the United States

- However, many countries in Europe showing continued signs of decline
- Within the U.S., case rates plateaued over past 2 weeks
- Most midwestern states (region 5) are also at a plateau

COVID spread in Michigan has plateaued

- COVID spread is assessed from many different markers including CDC community levels and other surveillance systems
- As of June 2, 51% of Michigan Counties at Medium or High COVID-19 Community Levels, which is a slight improvement from last week
  - 36% of Michigan residents reside in a county (5 counties) classified as High according to CDC's Community Levels.
  - 37 Michigan counties are currently at Medium level (45%). This represents 23% of the population.
- The R_t for Michigan is near 1 indicating COVID spread has plateaued
- The proportion of specimens sequenced and identified as BA.2.12.1 in the U.S. and Michigan continues to rise
- 25% of SWEEP sites saw an increase in the most recent week and another 20% of sites saw a plateau in trends
- Cases among staff and residents in Long Term Care Facilities are decreasing

**COVID-19 hospital metrics in Michigan remain lower than past surges**

- COVID-19 hospital admissions, hospital census, and pediatric hospitalizations are decreasing; COVID-19 ICU census is increasing
- In the current surge, there is a dissociation between patients hospitalized with COVID-19 and severity metrics, like ICU and ventilator usage

Although there is a wide range of uncertainty, modeling suggests we may see another surge this fall or winter
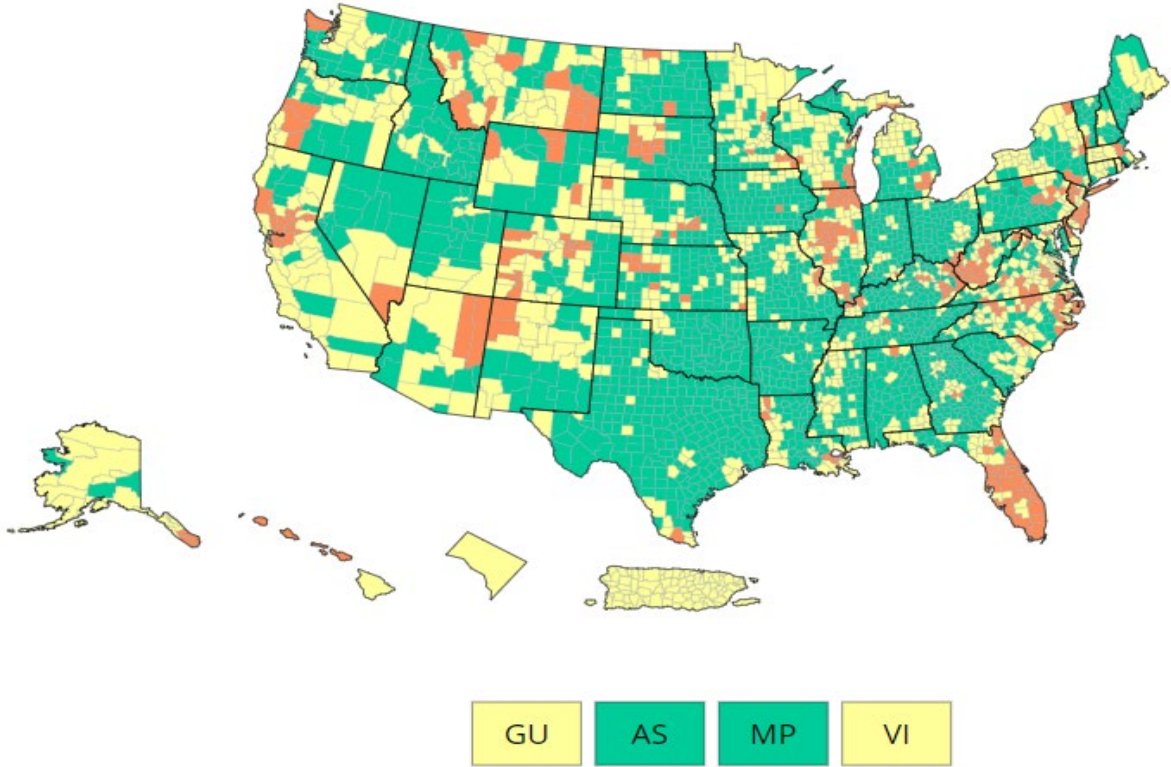
Global and National Trends

Daily new confirmed COVID-19 cases per million people
7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.

LINEAR | LOG

Portugal
Germany
Italy
Austria
United States
France
United Kingdom
Canada
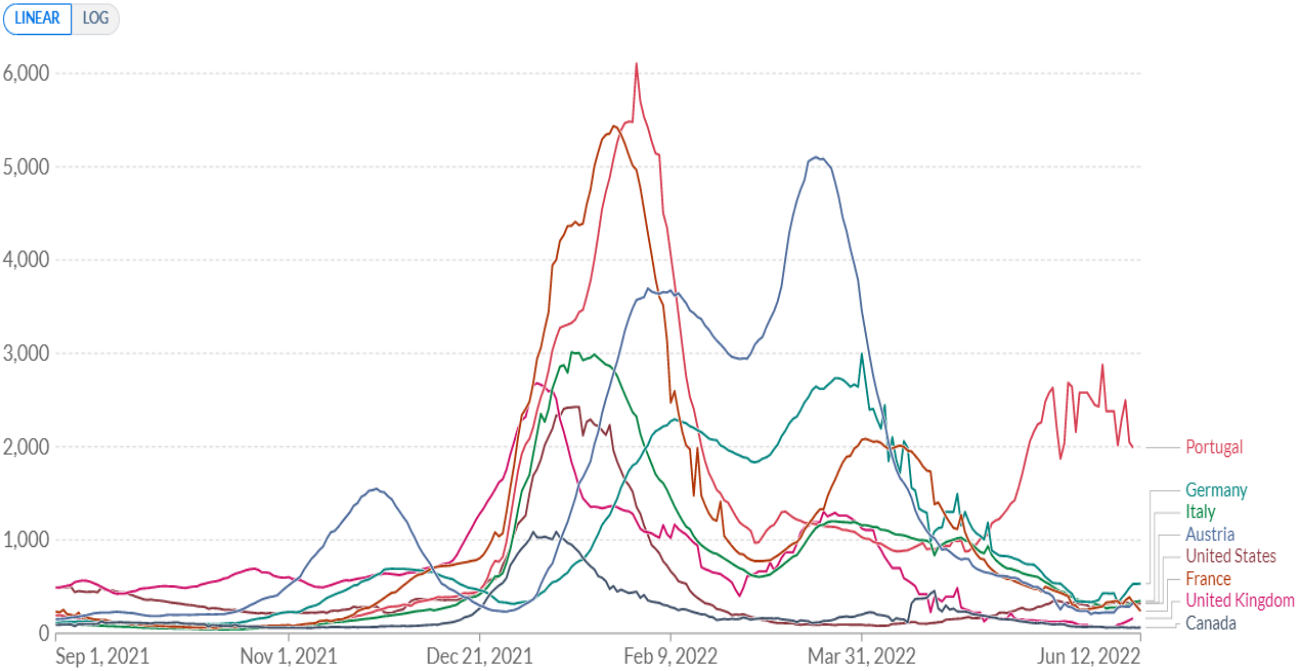
Source: Johns Hopkins University CSSE COVID-19 Data   CC BY

Our World in Data

GU | AS | MP | VI

Globally, 535,331,765 cases and 6,309,626 deaths (Data* through 6/13/2022)

- Case rates are steady for several European countries following second Omicron wave

United States: Reported cases (7-day average) have <u>increased</u> over 8.0% since the prior week¶
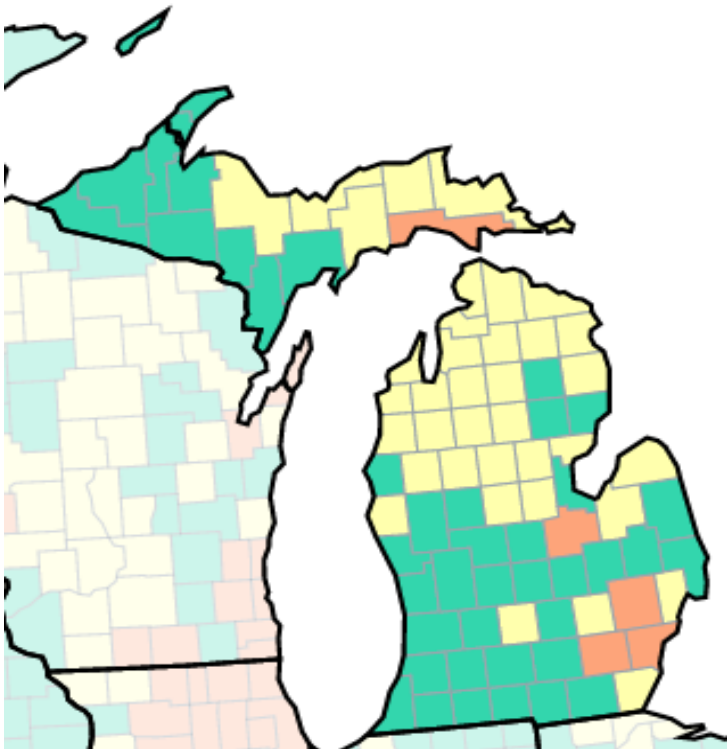
- In the U.S., the case rate is 229 cases/100,000 in last 7 days (last week: 206 cases per/100,000)

Continued signs of plateaus/declines in some parts of Region 5 (Midwest) states, including Michigan

- Illinois and Wisconsin have the highest case rates *in Region 5* (6/13)

As of June 9, 5 Michigan Counties at High COVID-19 Community Level

- In the US, 10% of counties have high risk for medically significant disease and healthcare strain; in Michigan, 6% of counties are at high risk
- 36% of Michigan residents reside in a county with a High COVID-19 Community Level
- All counties that are categorized as High have case rates that are equal to or greater than 200 per 100,000 and the HSA COVID hospital admissions per 100k is above 10.
- 37 Michigan counties are currently at Medium level (45%). This represents 23% of the population.

Percent of Counties

	United States	Michigan	Percent of MI Population
Low	58%	49%	41%
Medium	33%	45%	23%
High	10%	6%	36%

| Low	Medium	High
• Stay up to date with COVID-19 vaccines • Get tested if you have symptoms	• If you are at high risk for severe illness, talk to your healthcare provider about whether you need to wear a mask and take other precautions • Stay up to date with COVID-19 vaccines • Get tested if you have symptoms	• Wear a mask indoors in public • Stay up to date with COVID-19 vaccines • Get tested if you have symptoms • Additional precautions may be needed for people at high risk for severe illness

CDC COVID-19 Community Levels are defined by County Case Rates and Health Service Area (HSA) Hospitalizations


COVID-19 Community Levels – Use the Highest Level that Applies to Your Community

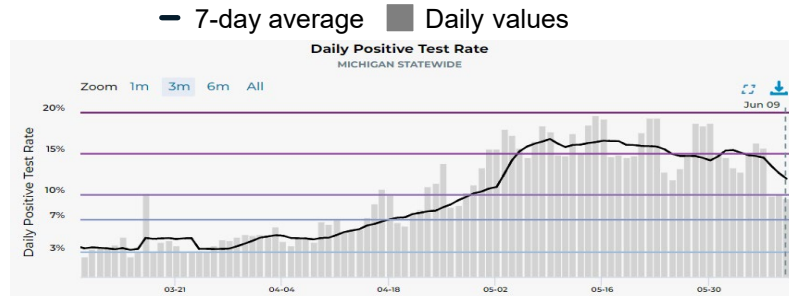| New COVID-19 Cases Per 100,000 people in the past 7 days	Indicators	Low	Medium	High
Fewer than 200	New COVID-19 admissions per 100,000 population (7-day total)	<10.0	10.0-19.9	≥20.0
	Percent of staffed inpatient beds occupied by COVID-19 patients (7-day average)	<10.0%	10.0-14.9%	≥15.0%
200 or more	New COVID-19 admissions per 100,000 population (7-day total)	NA	<10.0	≥10.0
	Proportion of staffed inpatient beds occupied by COVID-19 patients (7-day average)	NA	<10.0%	≥10.0%

Health Service Areas
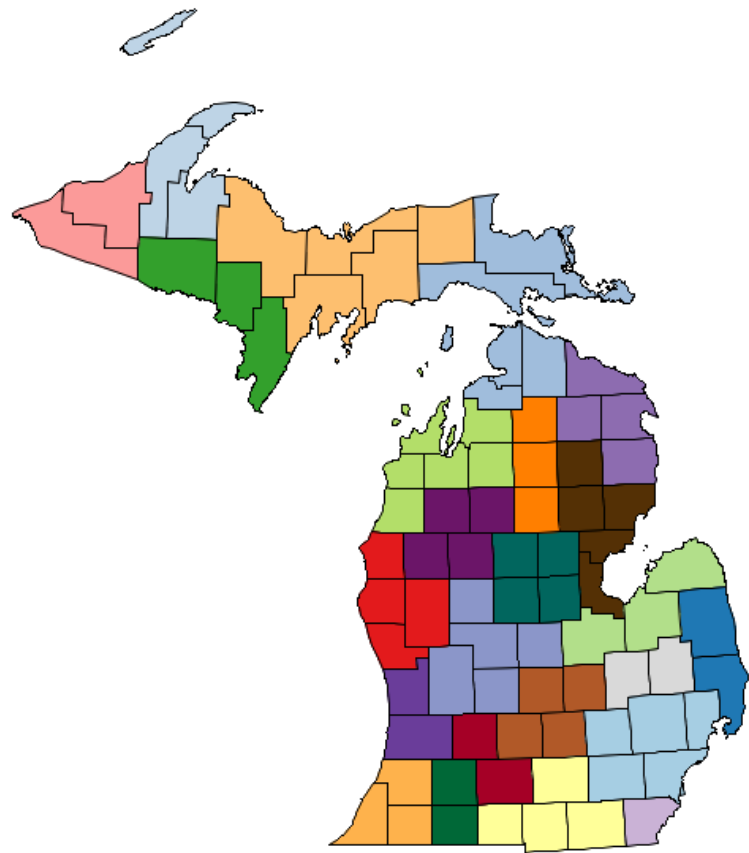
Local Prevention Decisions Should Use Community Levels in Concert with Other Pandemic Indicators

CS329821-A
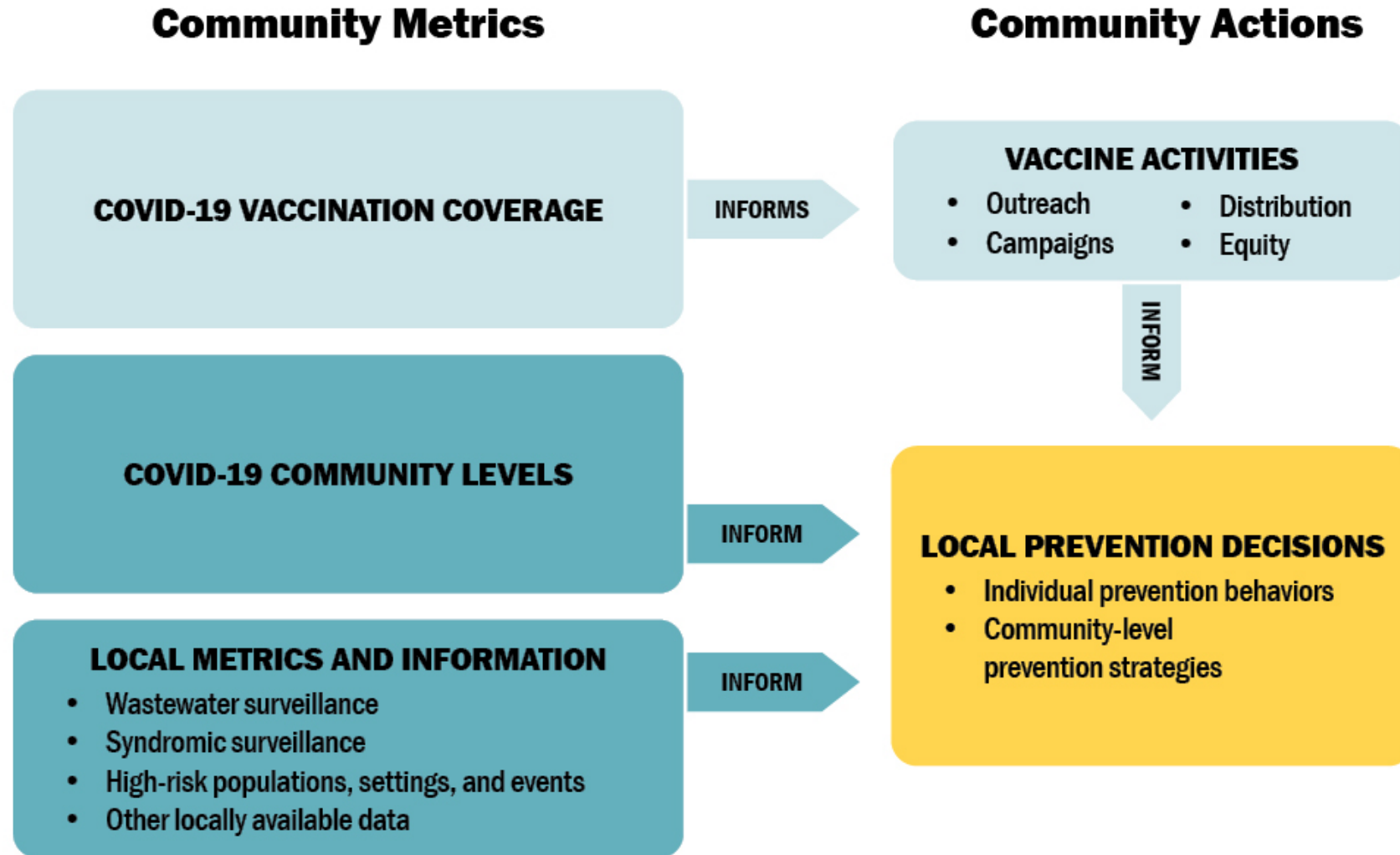
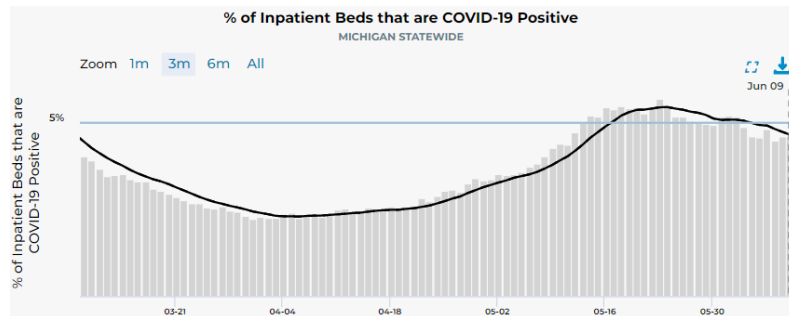# Recent statewide trends suggest early signs of plateaus/peaks
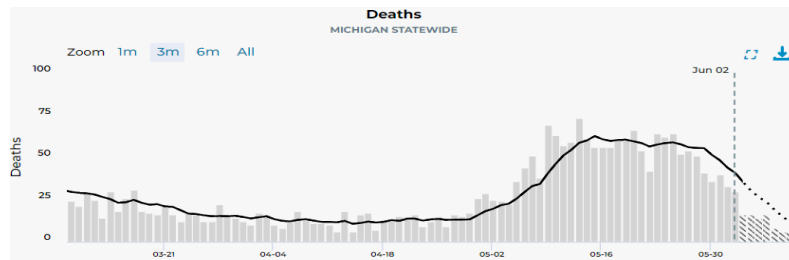
Statewide trends

— 7-day average ▪ Daily values

Daily Positive Test Rate
MICHIGAN STATEWIDE

Positivity, %

Current: 11.9%

Last Week: 15.4%

Daily cases per million population
MICHIGAN STATEWIDE

Daily cases per million

Current: 198.4

Last Week: 294.2

% of Inpatient Beds that are COVID-19 Positive
MICHIGAN STATEWIDE

Daily hospitalization rate, %

Current: 4.6%

Last Week: 5.0%

Deaths
MICHIGAN STATEWIDE

Deaths

Current: 3.5

Last Week: 3.6

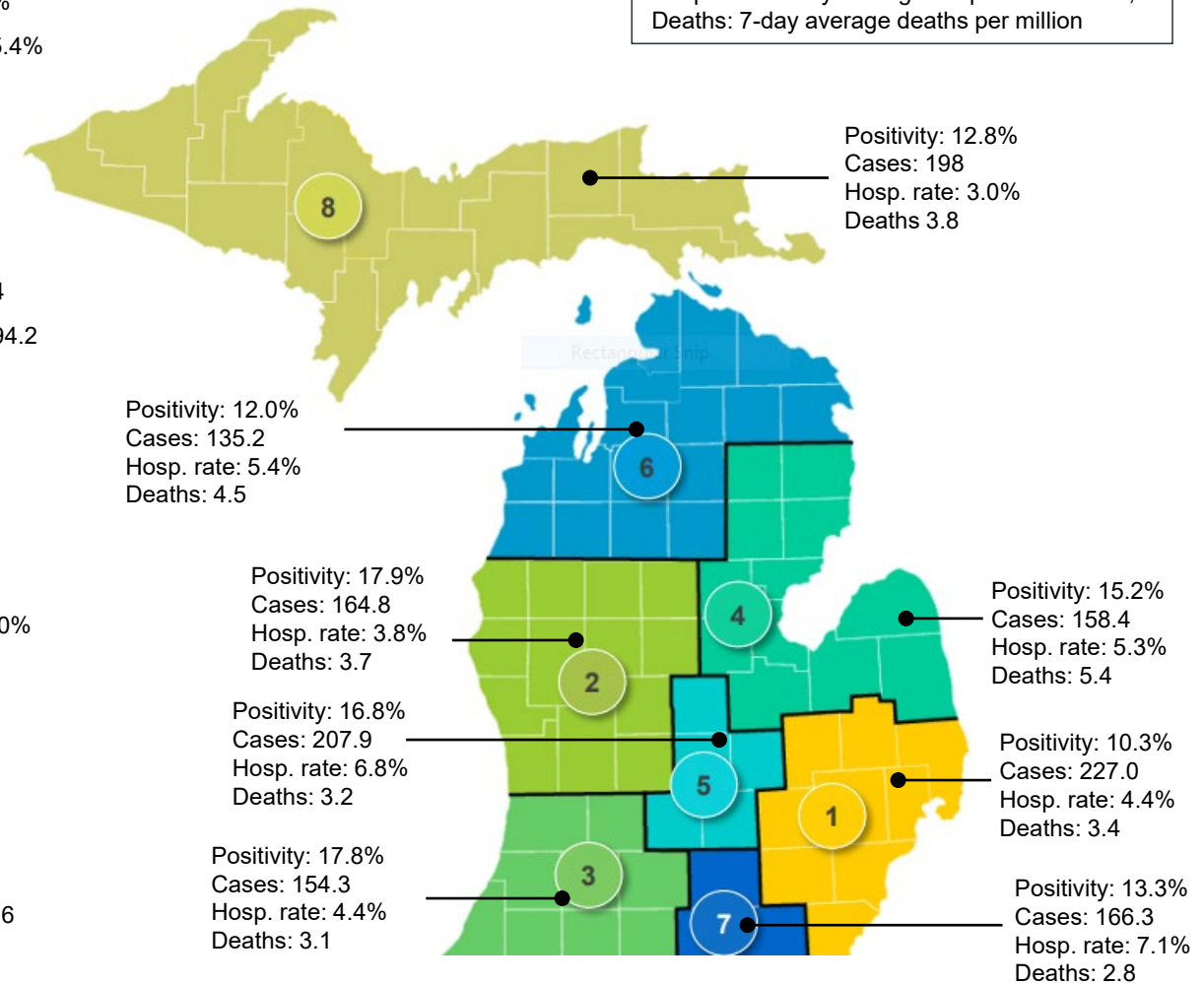## MERC Regional breakdown: Positivity, cases, hospitalization rate, and deaths

Positivity: 7-day average positivity, %
Cases: 7-day average cases per million
Hosp. rate: 7-day average hospitalization rate, %
Deaths: 7-day average deaths per million

Region 8
Positivity: 12.8%
Cases: 198
Hosp. rate: 3.0%
Deaths 3.8

Region 6
Positivity: 12.0%
Cases: 135.2
Hosp. rate: 5.4%
Deaths: 4.5

Region 2
Positivity: 17.9%
Cases: 164.8
Hosp. rate: 3.8%
Deaths: 3.7

Region 4
Positivity: 15.2%
Cases: 158.4
Hosp. rate: 5.3%
Deaths: 5.4

Region 5
Positivity: 16.8%
Cases: 207.9
Hosp. rate: 6.8%
Deaths: 3.2

Region 1
Positivity: 10.3%
Cases: 227.0
Hosp. rate: 4.4%
Deaths: 3.4

Region 3
Positivity: 17.8%
Cases: 154.3
Hosp. rate: 4.4%
Deaths: 3.1

Region 7
Positivity: 13.3%
Cases: 166.3
Hosp. rate: 7.1%
Deaths: 2.8

Source: https://mistartmap.info/

Case rates appear to have peaked/plateaued in Michigan
However, continue to monitor following the Memorial Holiday

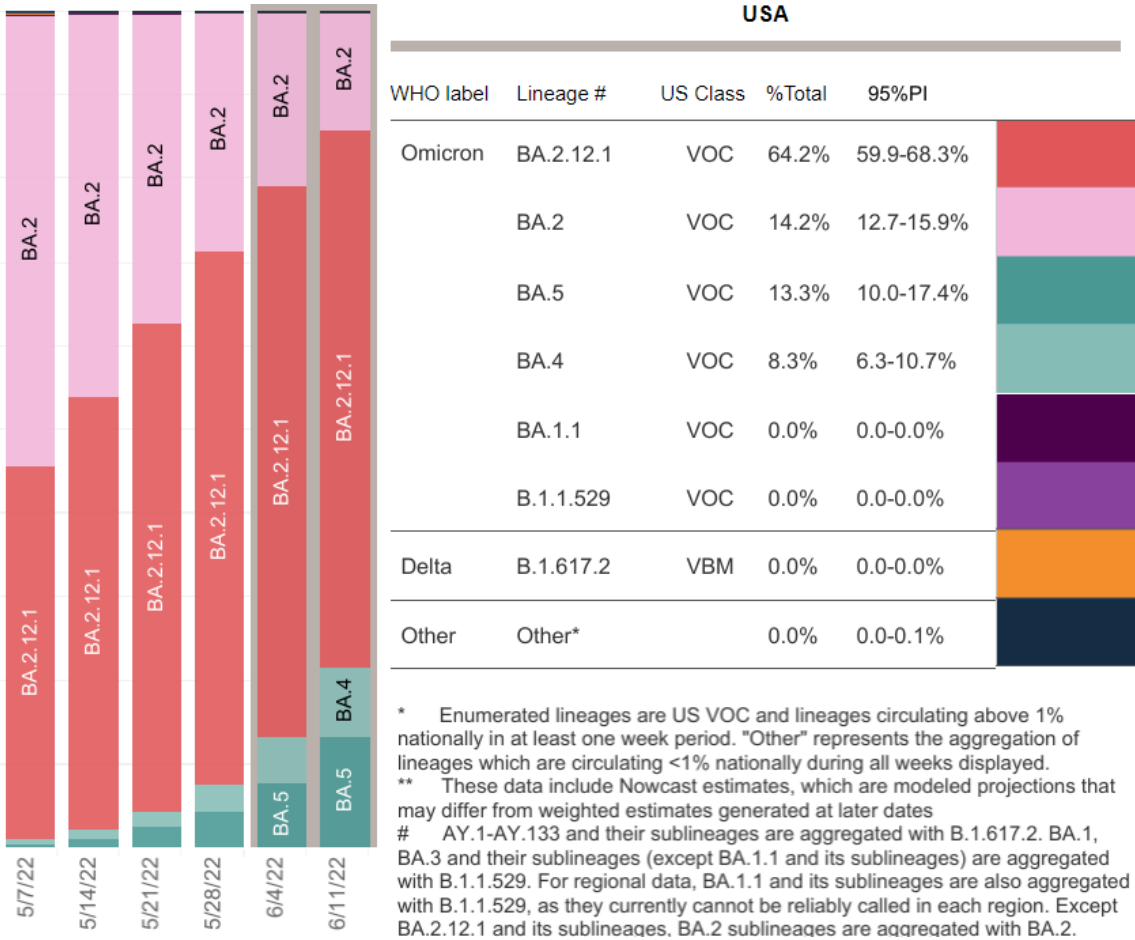Michigan R$_t$ has reached 1 (neither increase nor decrease)
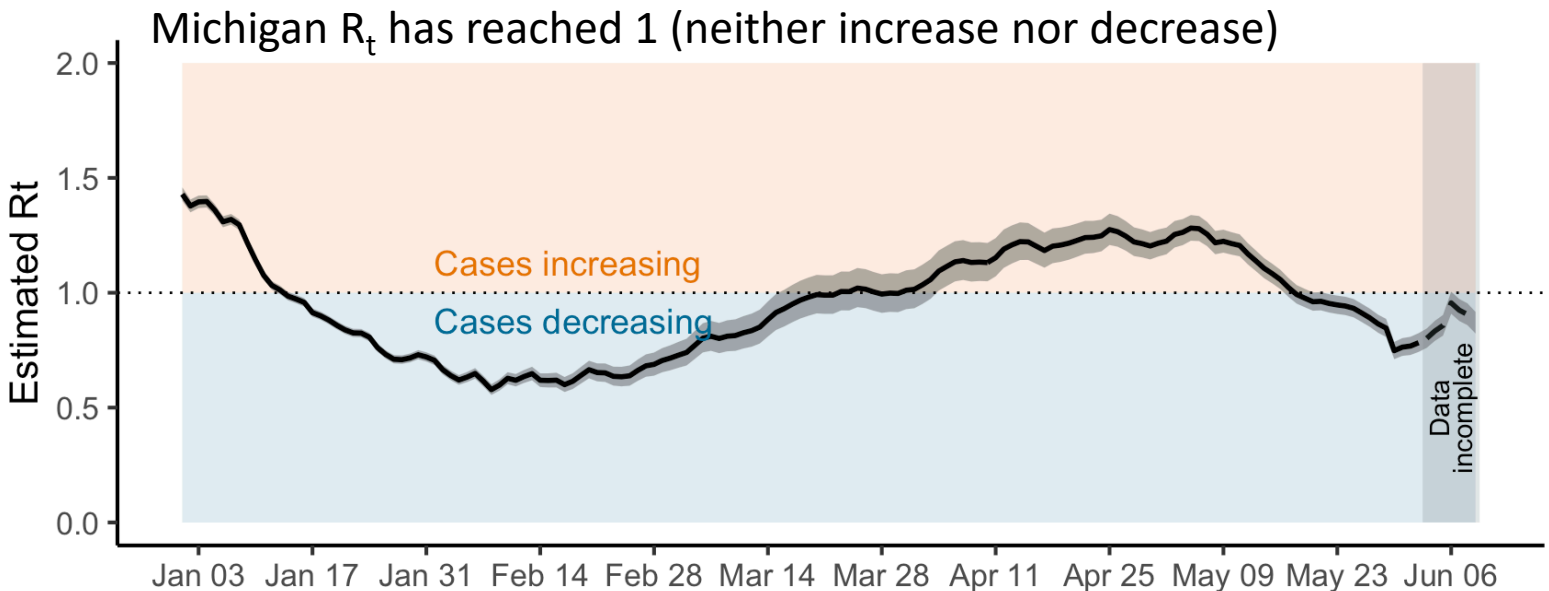
8 counties currently showing increases and 3 in elevated incidence plateaus (via mistartmap.info as of 6/10/22, data through 6/3/22).
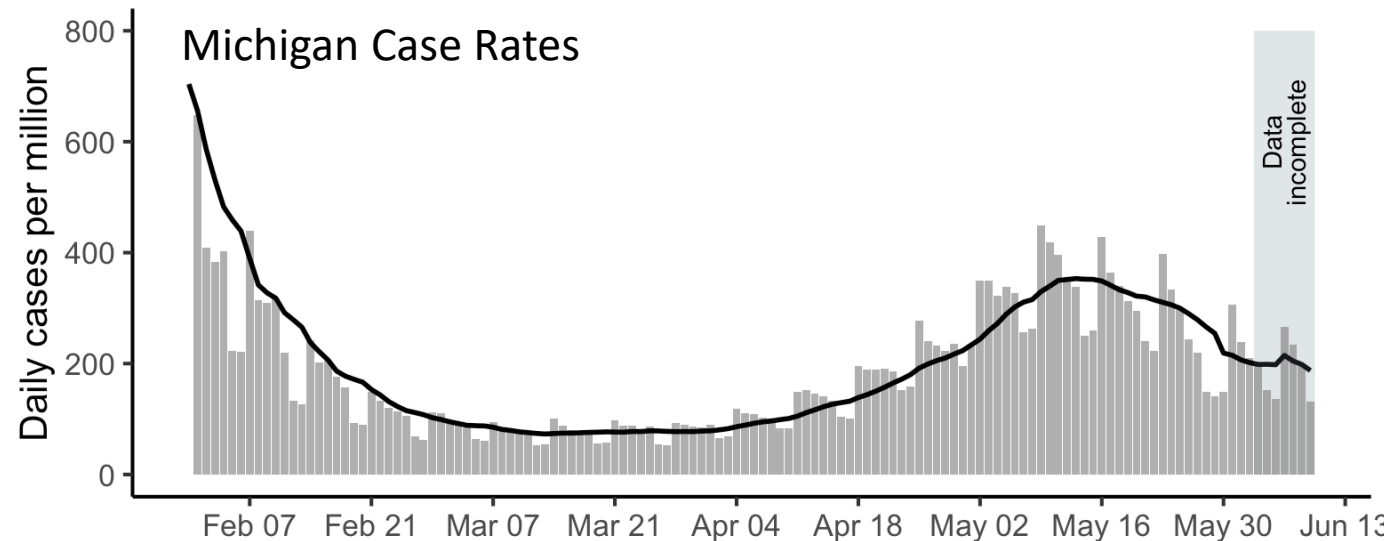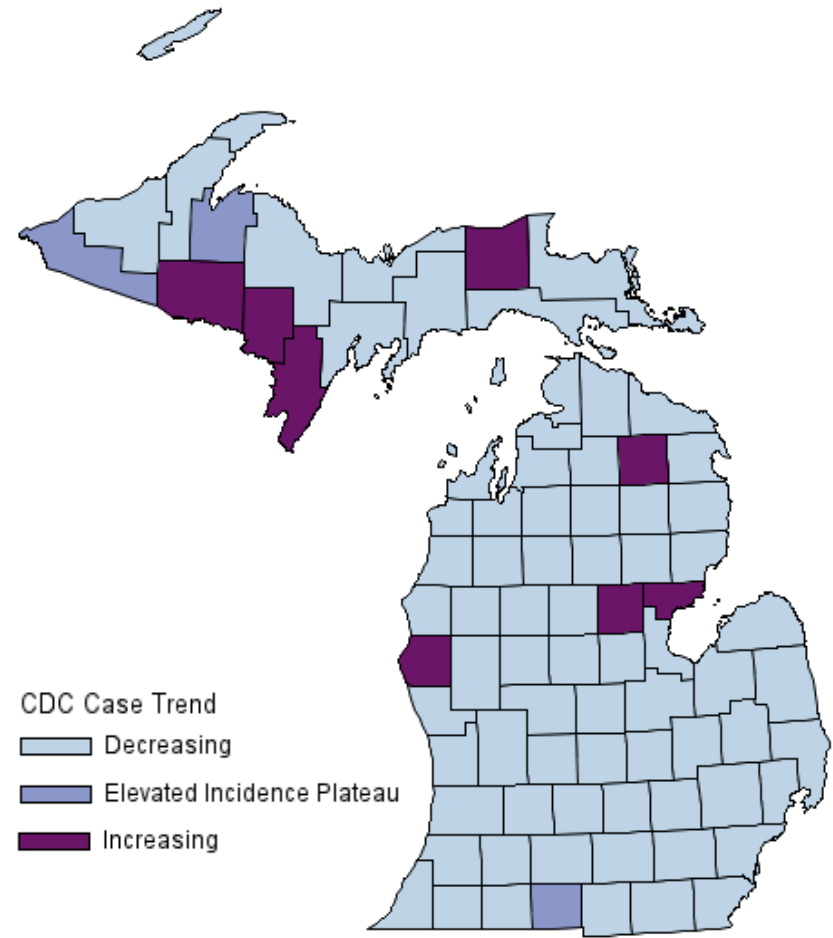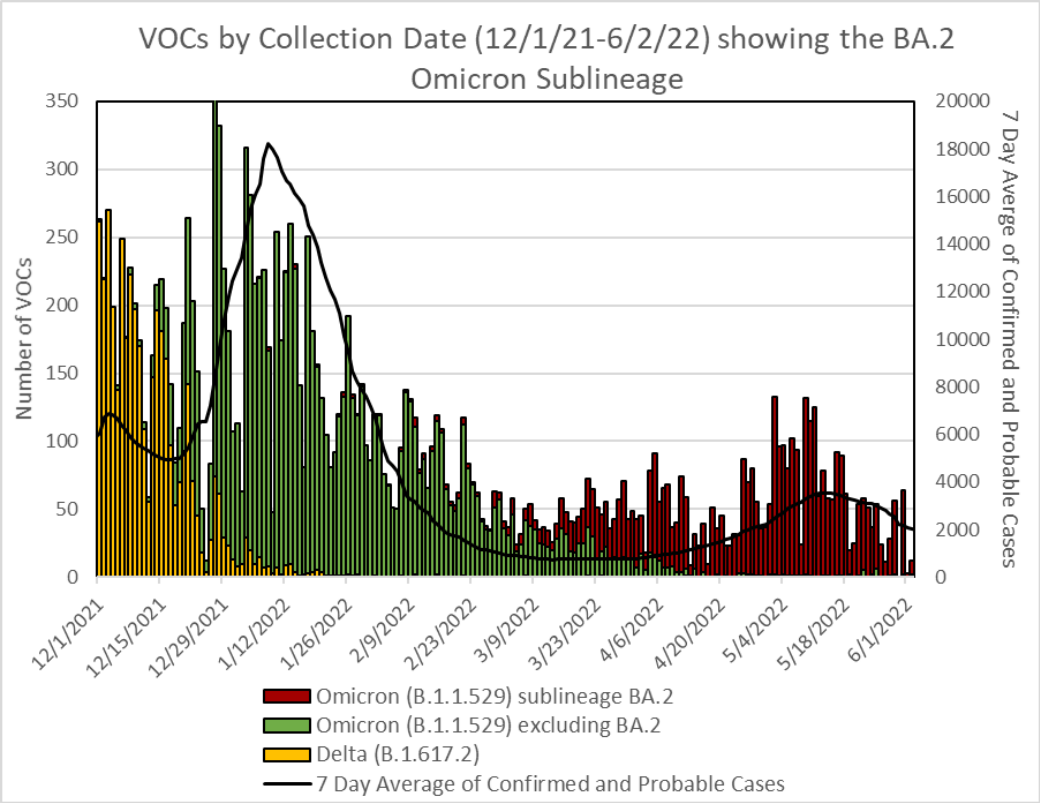

Sources: MDSS cases plotted by onset date as of 6/10/22.

Identified COVID-19 Cases Caused by Variants of Concern (VOC) in US and Michigan

SARS-CoV-2 Variants Circulating in the United States, May 1 – Jun 11 (NOWCAST)

USA

WHO label	Lineage #	US Class	%Total	95%PI	
Omicron	BA.2.12.1	VOC	64.2%	59.9-68.3%	
	BA.2	VOC	14.2%	12.7-15.9%	
	BA.5	VOC	13.3%	10.0-17.4%	
	BA.4	VOC	8.3%	6.3-10.7%	
	BA.1.1	VOC	0.0%	0.0-0.0%	
	B.1.1.529	VOC	0.0%	0.0-0.0%	
Delta	B.1.617.2	VBM	0.0%	0.0-0.0%	
Other	Other*		0.0%	0.0-0.1%	

* Enumerated lineages are US VOC and lineages circulating above 1% nationally in at least one week period. "Other" represents the aggregation of lineages which are circulating <1% nationally during all weeks displayed.
** These data include Nowcast estimates, which are modeled projections that may differ from weighted estimates generated at later dates
\# AY.1-AY.133 and their sublineages are aggregated with B.1.617.2. BA.1, BA.3 and their sublineages (except BA.1.1 and its sublineages) are aggregated with B.1.1.529. For regional data, BA.1.1 and its sublineages are also aggregated with B.1.1.529, as they currently cannot be reliably called in each region. Except BA.2.12.1 and its sublineages, BA.2 sublineages are aggregated with BA.2.

VOC Distribution in Michigan

- Since May 1, there have 2,044 VOC specimens sequenced
- 100% of specimens sequenced are Omicron
- A small fraction of specimens have been identified as BA.4 (n=19) and BA.5 (n=8)

Emerging Variant Update

- Omicron continues to be the predominant concern, including all its sublineages

    - Omicron has several sublineages of this variant, including BA.1, BA.2, BA.4, BA.5, BA.2.12.1, and recombinations of these.
    - BA.4 and BA.5 (new sublineages of Omicron) may spread faster than current lineages of Omicron in U.S. or U.K. These variants are spreading in other countries (BA.4 in S. Africa; BA.5 in Portugal), but data is still very preliminary.
    - Here in the U.S., BA.2.12.1 is now the most predominant but the proportion of BA.2 is below 50% and decreasing

- BA.2.12.1 is most common variant in HHS Region 5 (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin)

Michigan COVID-19 SWEEP Sentinel Wastewater Dashboard

The map below shows 20 sewershed sites in Michigan where wastewater is being monitored for the presence of SARS-CoV-2, the virus that causes COVID-19. These sentinel sites serve as a subset of wastewater surveillance in Michigan distributed across the Michigan Economic Recovery Council (MERC) Regions. Click on each site on the map to see wastewater and clinical case data over time. In the top right corner of the map, slide the white buttons to select the time period for which the site-specific percentile is calculated.
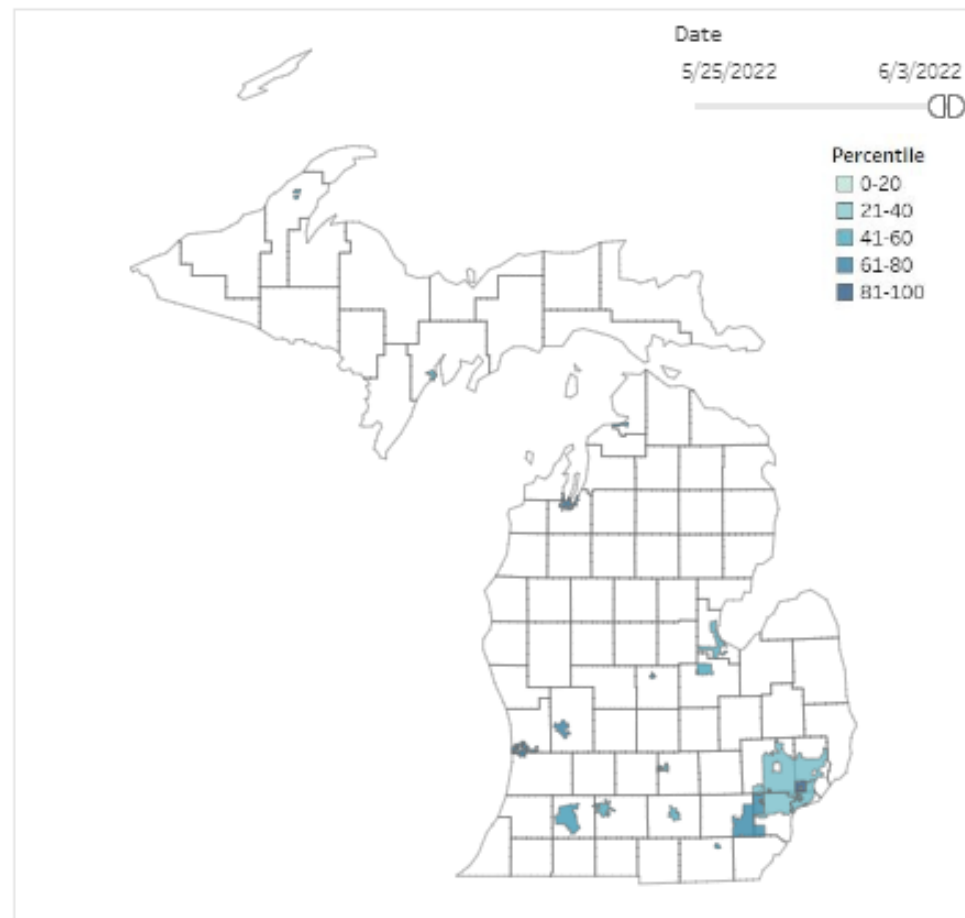
Site	Sewershed Population	Consecutive Weeks of Virus Detection	Trend As Of	15-Day Trend
Alma WWTP	8976	7	5/31/2022	↑
Battle Creek WWTP	51093	7	6/1/2022	↓
Bay City WWTP	34000	7	6/1/2022	↑
Delhi Township WWTP	22500	9	5/26/2022	↓
Escanaba WWTP	12600	5	6/1/2022	↓
GLWA Detroit River Interce..	492000	84	5/25/2022	↓
GLWA North Interceptor-	1482000	61	5/25/2022	↘
GLWA Oakwood-	840600	84	5/25/2022	↗
Grand Rapids WWTP	265000	43	6/2/2022	↗
Holland WWTP North	45606	7	6/1/2022	↓
Holland WWTP South	36912	9	6/1/2022	↓
Jackson WWTP	90000	46	6/1/2022	↑
Kalamazoo WWTP	150000	10	6/1/2022	↘
Petoskey WWTP	7900	7	6/2/2022	↑
Portage Lake WWTP	14000	38	6/1/2022	↓
Saginaw Township WWTP	40000	8	6/1/2022	↓
Tecumseh WWTP	8680	21	6/3/2022	↓
Traverse City WWTP	45000	12	6/2/2022	↑
Warren WWTP	135000	6	5/26/2022	↓
Ypsilanti WWTP	330000	46	5/30/2022	↓

Date
5/25/2022 — 6/3/2022

Percentile
- ☐ 0-20
- ☐ 21-40
- ☐ 41-60
- ☐ 61-80
- ☐ 81-100

Abbreviations: GLWA - Great Lakes Water Authority; WWTP - Waste Water Treatment Plant

Definitions and descriptions of data calculations can be found in the "About" tab.

Current results reflect data that were uploaded to MDHHS as of 6/8/2022. Labs are required to report test results to local partners within 24 hours. Data is subject to change as additional wastewater data and case data are received.

15-Day Trends
- ↑ 1000% or more
- ↑ 100% to 999%
- ↑ 10% to 99%
- ↗ 0% to 9%
- ↘ -1% to -9%
- ↓ -10% to -99%
- ↓ -100% to -999%
- ↓ -1000% or more

SWEEP Summary

- 25% (5/20) of sentinel sites are showing increasing trends over last 15-days

- 20% (4/20) of sites have plateaued over the last 15 days

- 55% (11/20) of sentinel sites are showing declines in the previous 15-days

Interpreting Wastewater Should Be In Context with Other Indicators

- When levels of virus in wastewater are low, a modest increase overall in virus level can appear much larger as numbers are translated into percentages
  - This does not necessarily mean we will see major increases in transmission in the community

- When increases are seen within one wastewater site, public health officials compare with neighboring communities and other data sources to understand potential of surges
  - For example, the Ypsilanti WWTP saw increases in SARS-CoV-2 levels which correlated with increasing presence of Omicron BA.2 lineage and then followed by an increase in cases

Ypsilanti WWTP
The most recent sample concentration is higher than 84% of samples collected at this site, which puts it in the 81-100 percentile category. As of 5/10/2022, the change in viral concentration over the past 15 days is increasing.

Wastewater SARS-CoV-2 Levels and COVID-19 Cases
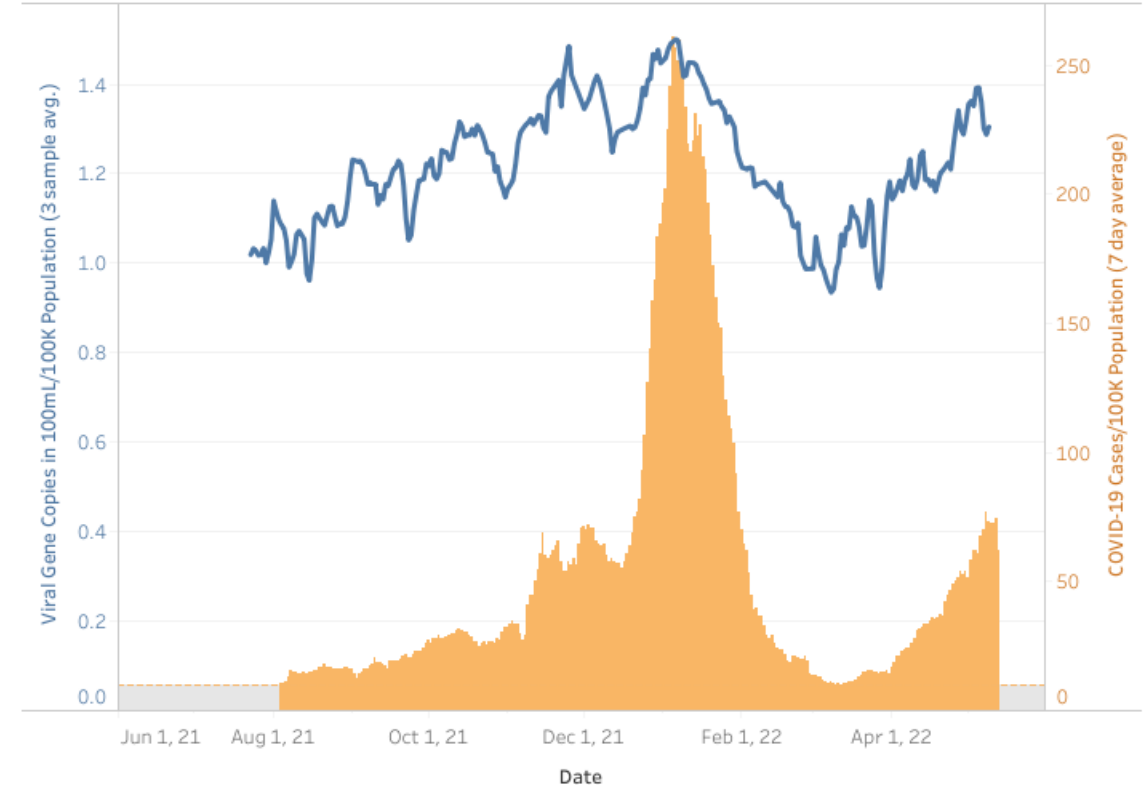
The blue line on the graph shows the levels of SARS-CoV-2, the virus that causes COVID-19, in the wastewater samples collected from Ypsilanti WWTP. Each data point is calculated by averaging the number of viral gene copies detected per 100mL of wastewater in the 3 most recent samples. The orange bars on the graph show the COVID-19 cases reported to MDHHS from the zip codes that the wastewater treatment plant serves (7-day average). Both the virus levels and COVID-19 cases are calculated per 100,000 people. Case data will not be shown on the graph when the average number of cases is fewer than 10 per 100,000 people to protect the confidentiality of individuals with infections. This will be represented by an orange dashed line with gray shading below.
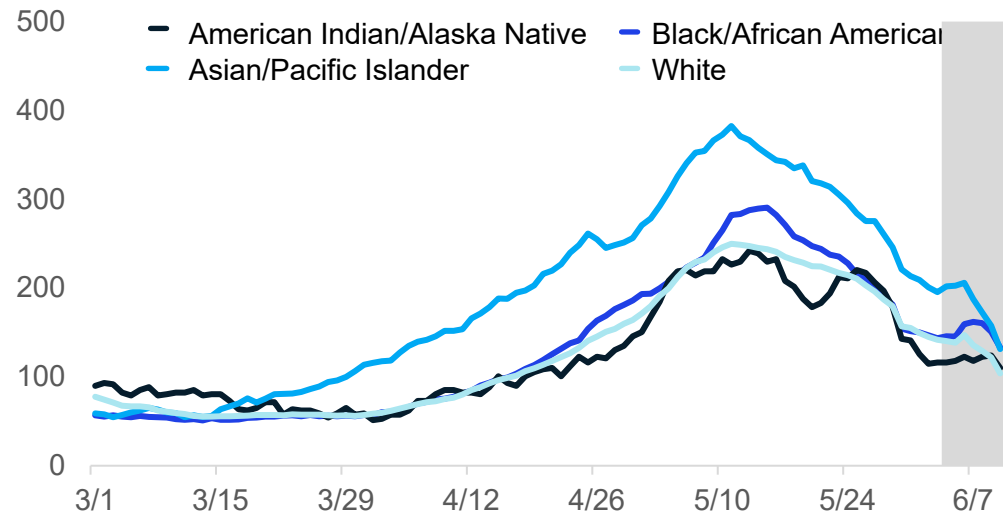
Source: MDHHS – Sentinel Wastewater Epidemiology Evaluation Project - https://www.michigan.gov/coronavirus/0,9753,7-406-98163_98173-573480--,00.html

Case rate are decreasing or plateaued for all stratified groups

Daily new confirmed and probable cases per million by age group (7-day rolling average)

Legend: 0-9, 10-19, 20-29, 30-39, 40-49, 50-59, 60-69, 70-79, 80+
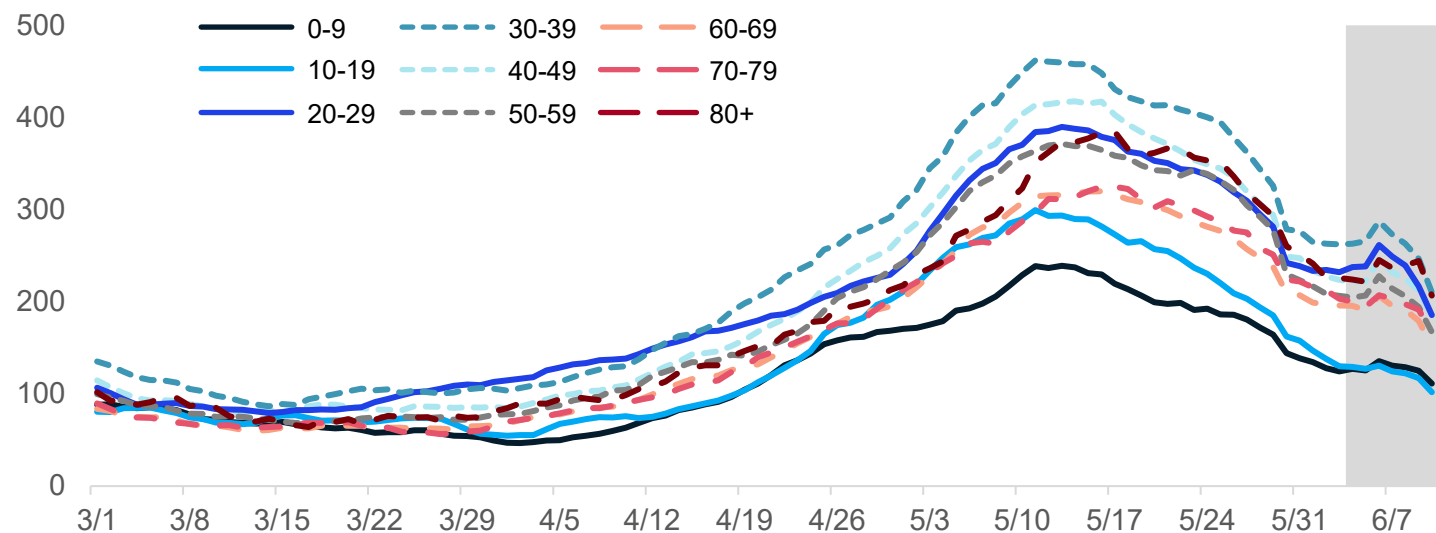
- Case rates by onset date for all age groups are between 124.5 and 262.4 cases per million (through 6/3)

- Case counts and case rates are highest for 30-39-year-olds this week, followed by 20–29-year-olds and the 80+-year age groups

Daily new confirmed and probable cases per million (7 day rolling average) by race & ethnicity category

Legend: American Indian/Alaska Native, Asian/Pacific Islander, Black/African American, White

Legend: Hispanic or Latino, Not Hispanic or Latino
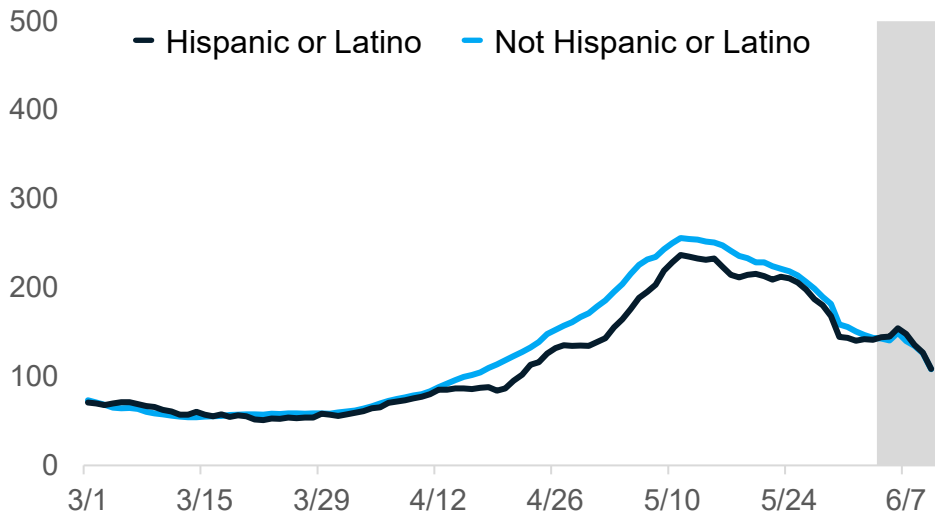
- Case rates are highest for Asian/Pacific Islander populations (195.4 cases/million)

- Between 22-28% of cases in last 30 days have missing race/ethnicity data

Note: Case information sourced from MDHHS and reflects date of onset of symptoms
Source: MDHHS – Michigan Disease Surveillance System

13

Cases Among Staff and Residents Experienced Signs of Plateaus and Decreases in Long Term Care Facilities

STATE OF MICHIGAN WEEKLY TOTAL CONFIRMED COVID-19 CASES IN AFC/HFA RESIDENTS AND STAFF 06/09/2021 TO 06/08/2022
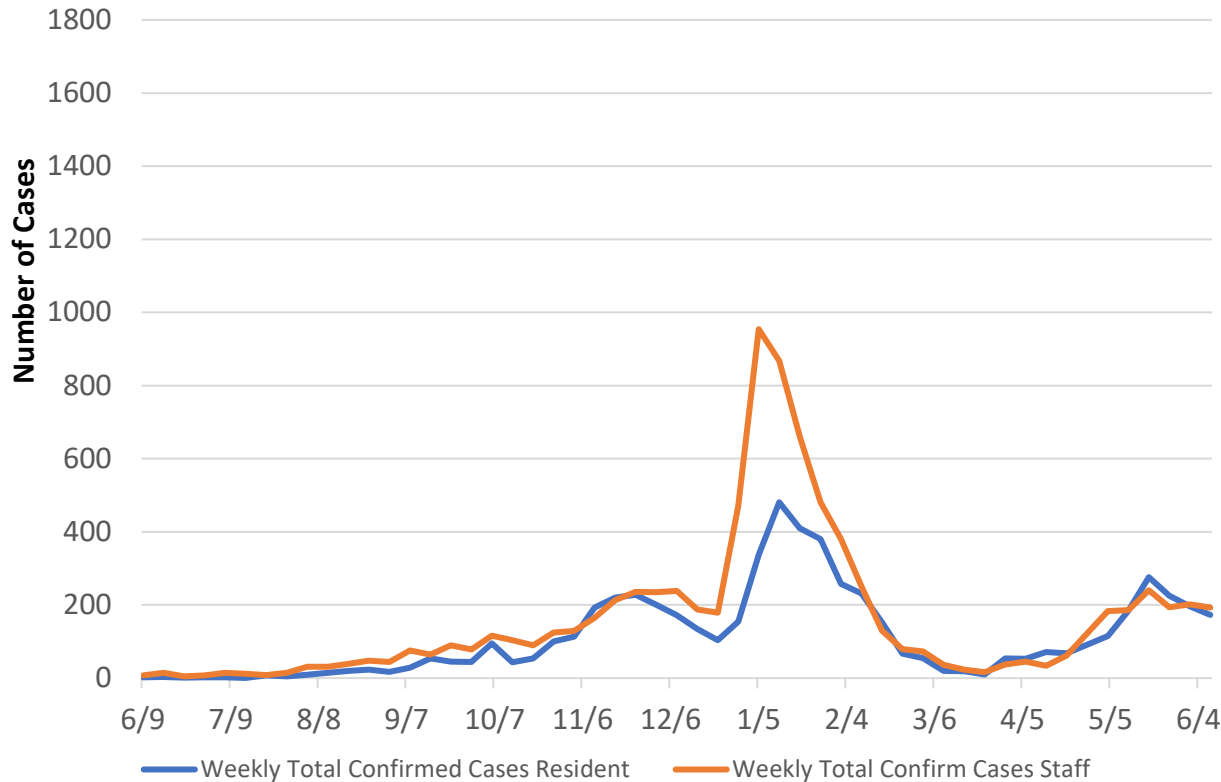
STATE OF MICHIGAN WEEKLY TOTAL CONFIRMED COVID-19 CASES IN SNF RESIDENTS AND STAFF 06/11/2021 TO 06/10/2022
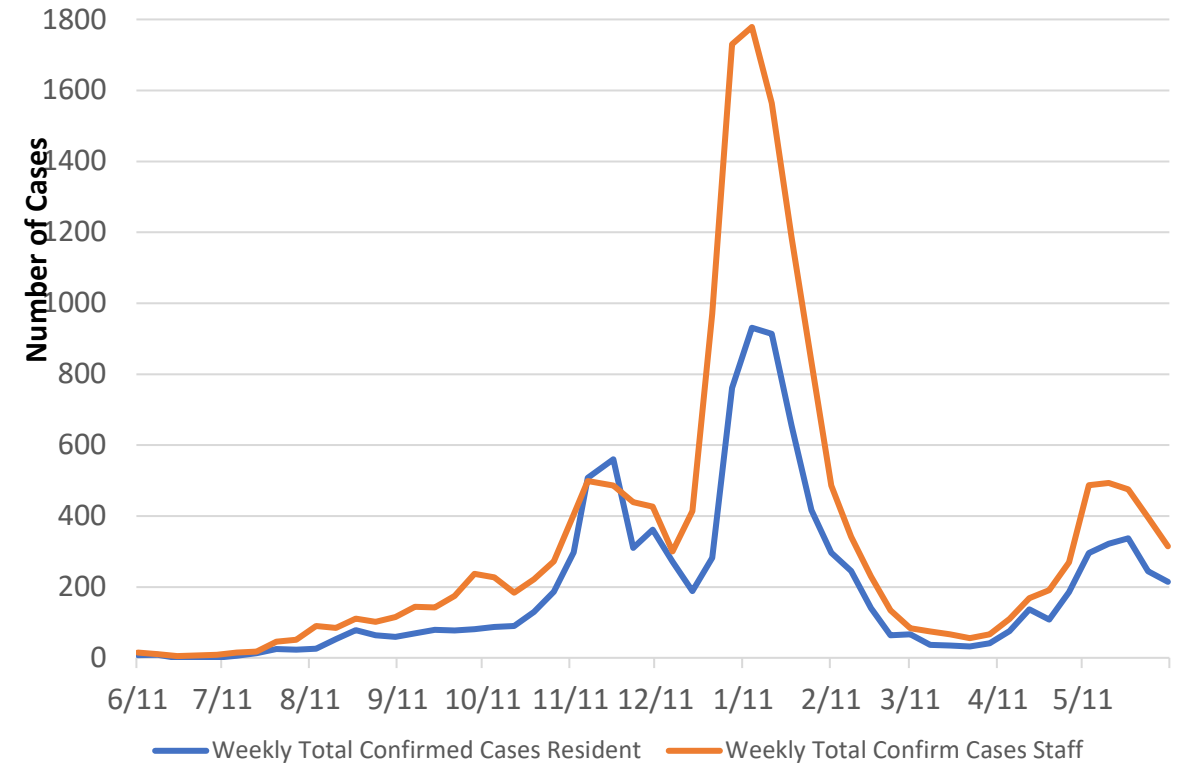
- Case counts in residents decreased in AFC/HFA (173) and SNFs (215) since last week

- Case counts in staff decreased in AFC/HFA (193) and in SNFs (315) since last week

- **31%** of SNFs are reporting **nursing shortages** and **34%** of SNFs are reporting **aide shortages**, which are slightly down from last week

Abbreviations: AFC: Adult Foster Care; HFAs: Homes for the Aged; and SNF: Skilled Nursing Facilities

The data is from weekly reporting by facilities with bed occupancy of at least 13 beds.

14

Reported Number of Outbreaks in Long Term Care Facilities are Decreasing

Number of AFC/HFAs with 3 or more Confirmed Cases

Number of SNFs with 3 or more Confirmed Cases
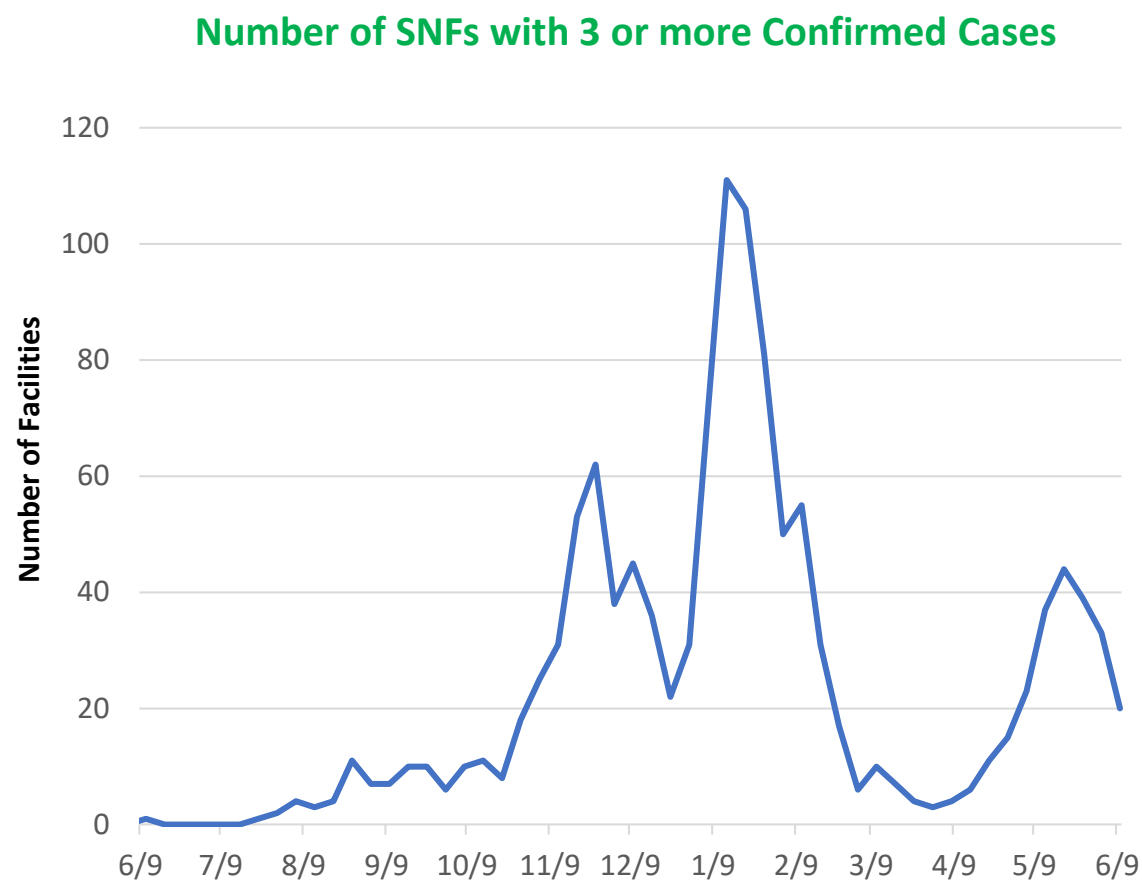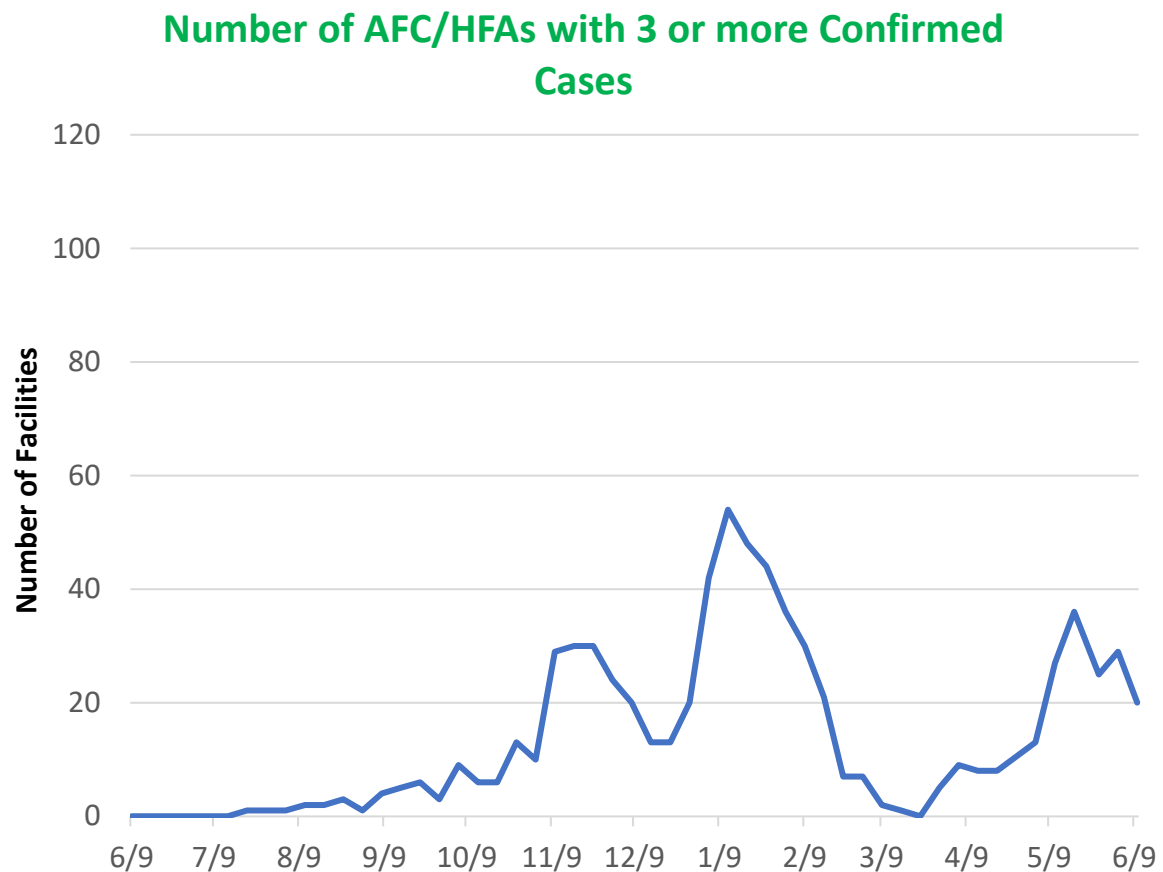
- The number of Long-Term Care Facilities reporting 3 or more cases within a single reporting period decreased in **AFC/HFA** from 29 to 20; and decreased in **SNF** from 39 to 33 in most recent data.

The data is from weekly reporting by facilities with bed occupancy of at least 13 beds.

Hospital admissions due to COVID-19 remain lower than past surges and are decreasing
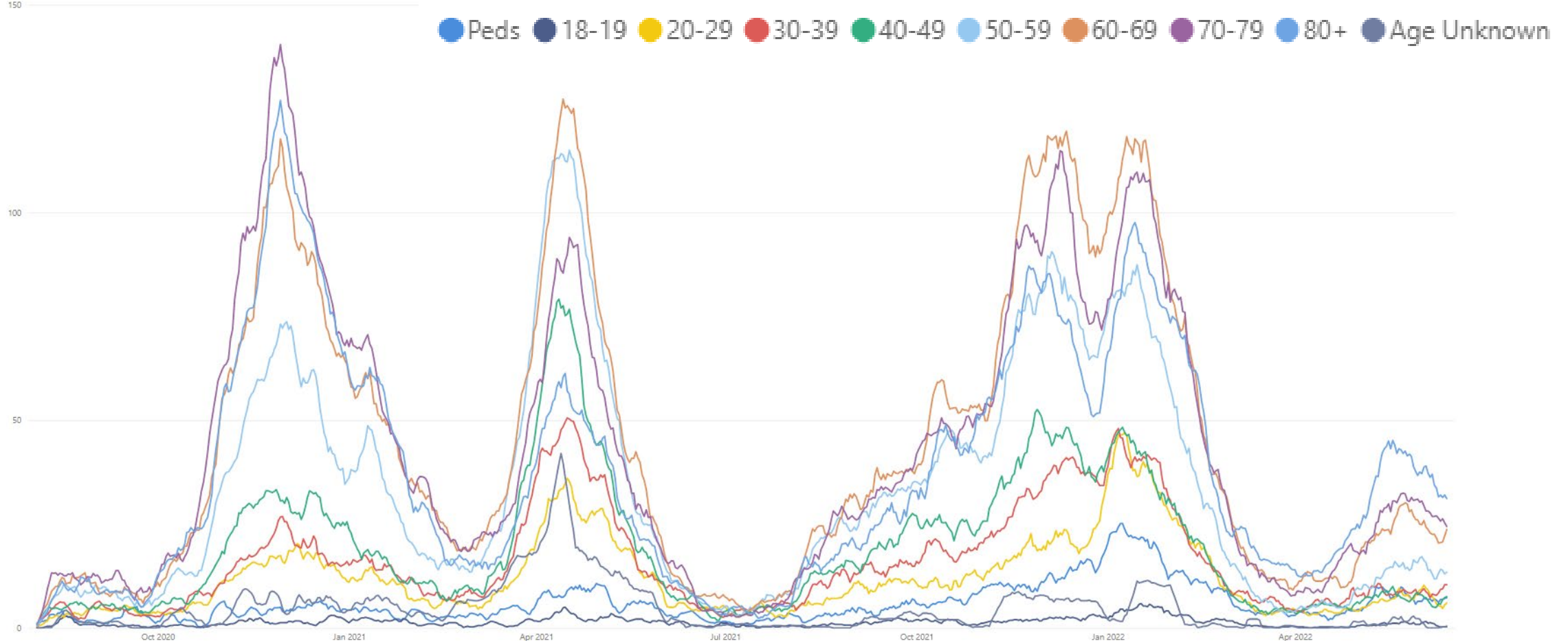
- Trends for daily average hospital admissions slightly decreased (-4%) since last week (vs. -12% prior week)

- Half of the reported age groups saw decreases this week

- Those 60-69, 70-79, and 80+ are seeing between 20-30 daily hospital admissions

Source: CHECC & EM Resource

Hospital Admissions and Admission Rates by Age Group

Daily new hospital admission per million by age group (7-day rolling average)

Age Group	Average† daily number of hospital admissions	Average† Daily Hospital Admission Rate*	One Week % Change (Δ #)
0-11	3.3	2.4	-32% (-2)
12-17	1.9	2.5	+63% (+1)
18-19	0.4	1.6	-63% (-1)
20-29	6.1	4.5	-19% (-1)
30-39	10.1	8.4	+25% (+2)
40-49	7.4	6.3	+44% (+2)
50-59	14.0	10.4	+8% (+1)
60-69	**23.7**	**18.6**	+5% (+1)
70-79	**24.4**	**31.9**	-9% (-2)
80+	**30.9**	**74.5**	-17% (-6)
Total¶	**122.6**	**10.8**	**-4% (-5)**

* Rate per 1 million residents; † Rolling 7-day average; ¶ Total may not reflect state due to missing age data
Note: Hospital Admission data reflects date data was submitted
Source: CHECC and EM Resource

- Through June 13, there were an average of 122.6 hospital admissions per day due to COVID-19; a slight decrease from last week (-4%, -5)

- Half of the age groups saw a decrease this week

- Of the five age groups with increases, none were more than an average of 2 additional hospital admissions per day

- Average daily hospital admission count (30.9 hospital admissions per day) and average daily hospital admission rate (74.5 hospital admissions/million) were highest among those aged 80+

- Those 60-69, 70-79, and 80+ are seeing between 20-30 daily hospital admissions

Note: for some age groups, small changes in number of hospitalization admissions can cause large change in One Week Percent Change

Statewide Hospitalization Trends: Total COVID+ Census

Hospitalization Trends 7/1/2021 – 6/13/2022
Confirmed Positive & Persons Under Investigation (PUI)
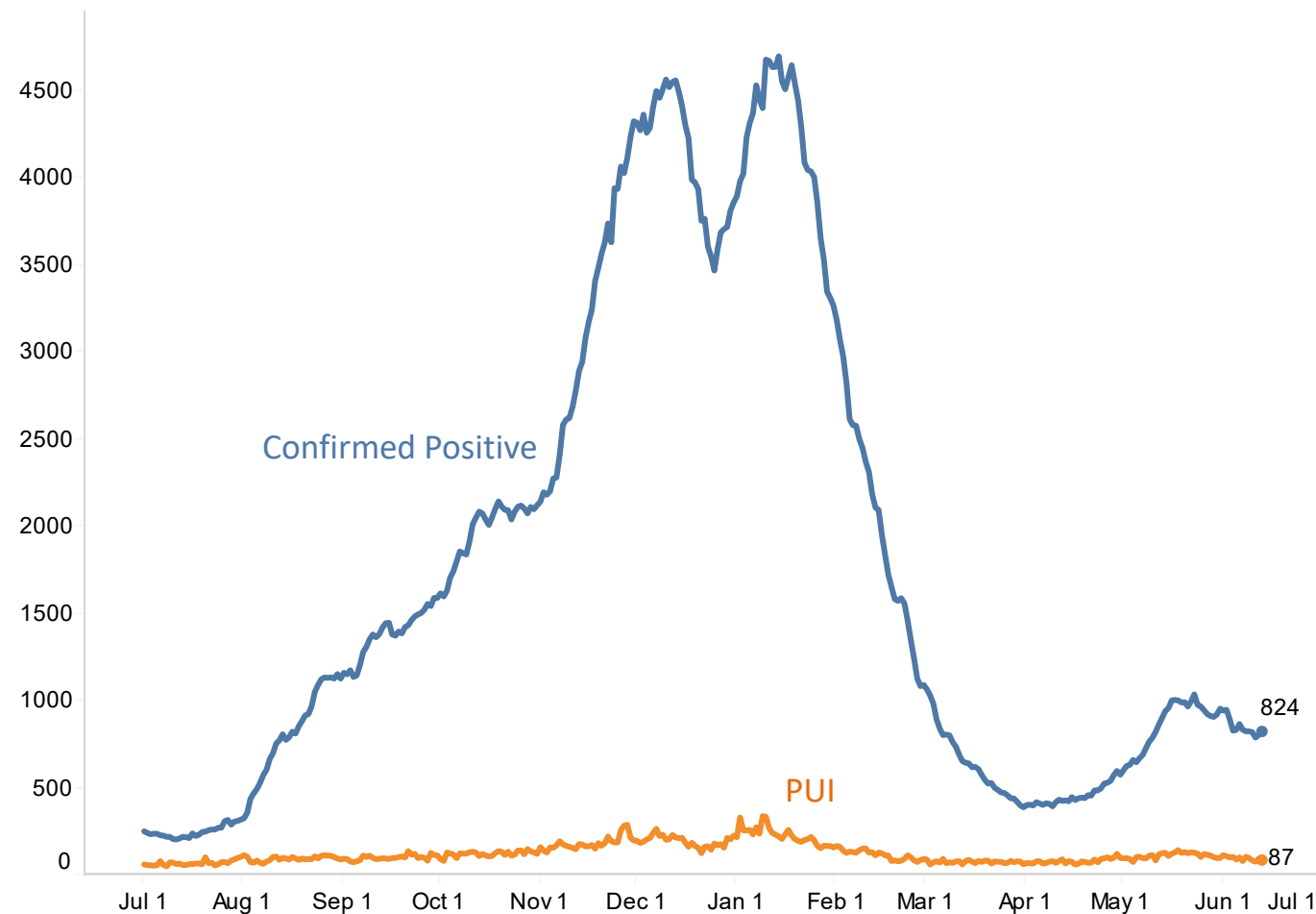
The COVID+ census in hospitals has decreased by 5% from last week (last week decreased 10% from the previous week). Overall census is currently 824 patients.

Hospitalized COVID Positive Long Term Trend (beginning March 2020)
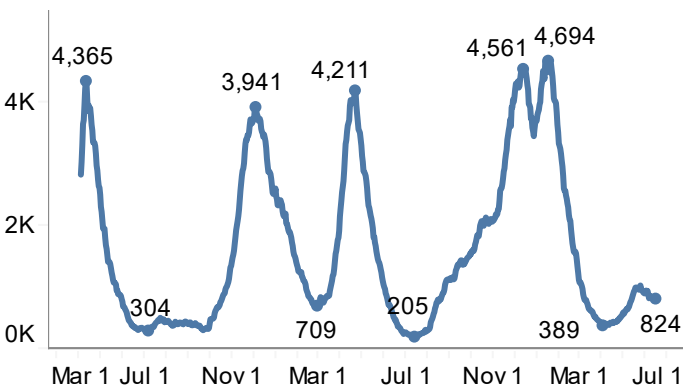
Statewide Hospitalization Trends: Regional COVID+ Census

Hospitalization Trends 7/1/2021 – 6/13/2022
Confirmed Positive by Region

Legend:
- Region 1
- Region 2N
- Region 2S
- Region 3
- Region 5
- Region 6
- Region 7
- Region 8
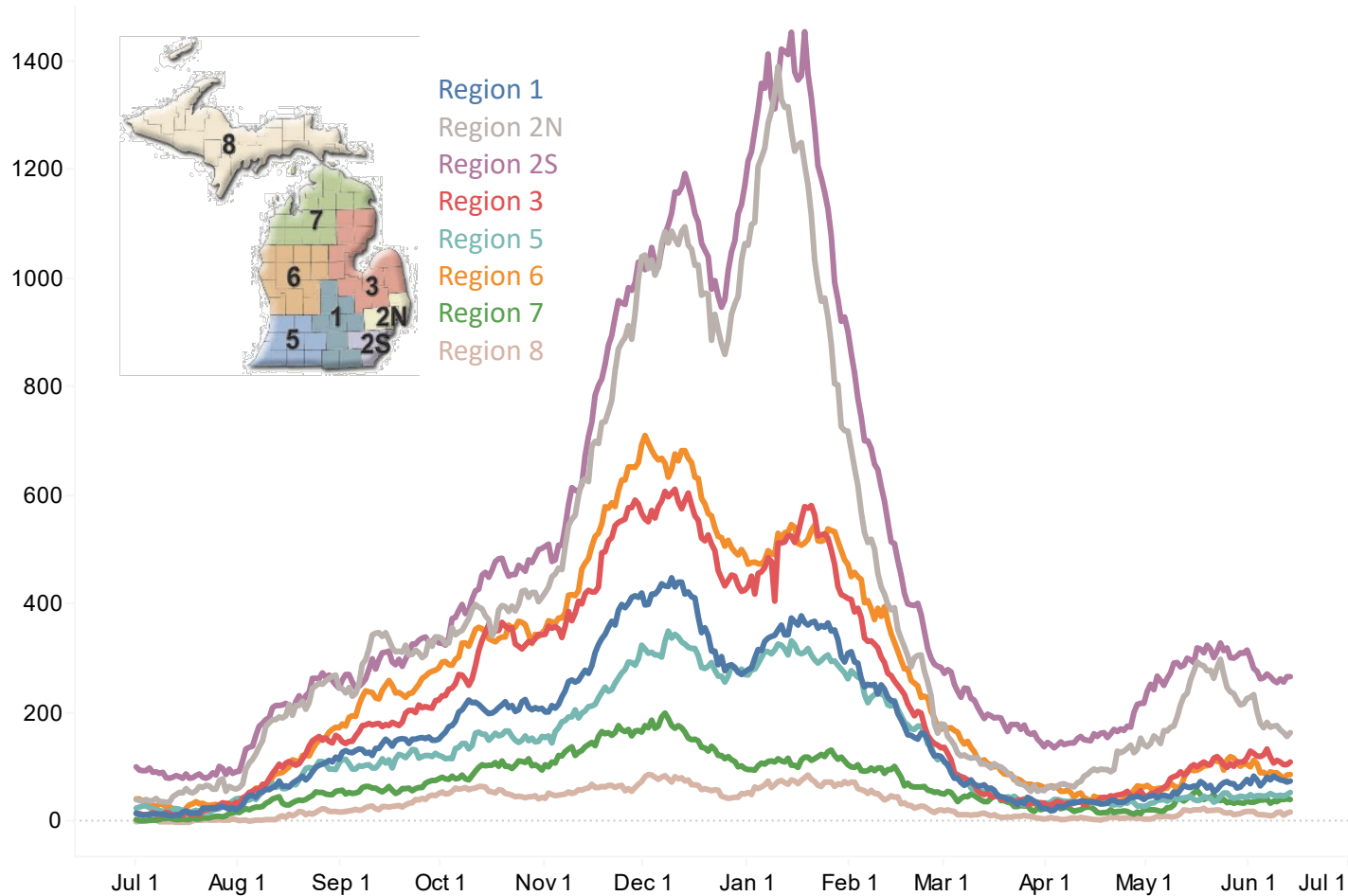
This week the COVID+ census has increased in Regions 5, 6 and 8. The census has decreased in Regions 1, 2N, 2S, 3, and 7.

Only Region 2S has greater than 100/Million Population hospitalized with COVID.

Region	COVID+ Hospitalizations (% Δ from last week)	COVID+ Hospitalizations / MM
Region 1	76 (-8%)	70/M
Region 2N	165 (-10%)	75/M
Region 2S	268 (-2%)	120/M
Region 3	111 (-18%)	98/M
Region 5	55 (12%)	58/M
Region 6	88 (1%)	60/M
Region 7	42 (-2%)	84/M
Region 8	19 (46%)	61/M

Statewide Hospitalization Trends: ICU COVID+ Census

Hospitalization Trends 7/1/2021 – 6/13/2022 Confirmed Positive in ICUs

Confirmed Positive in ICU

115
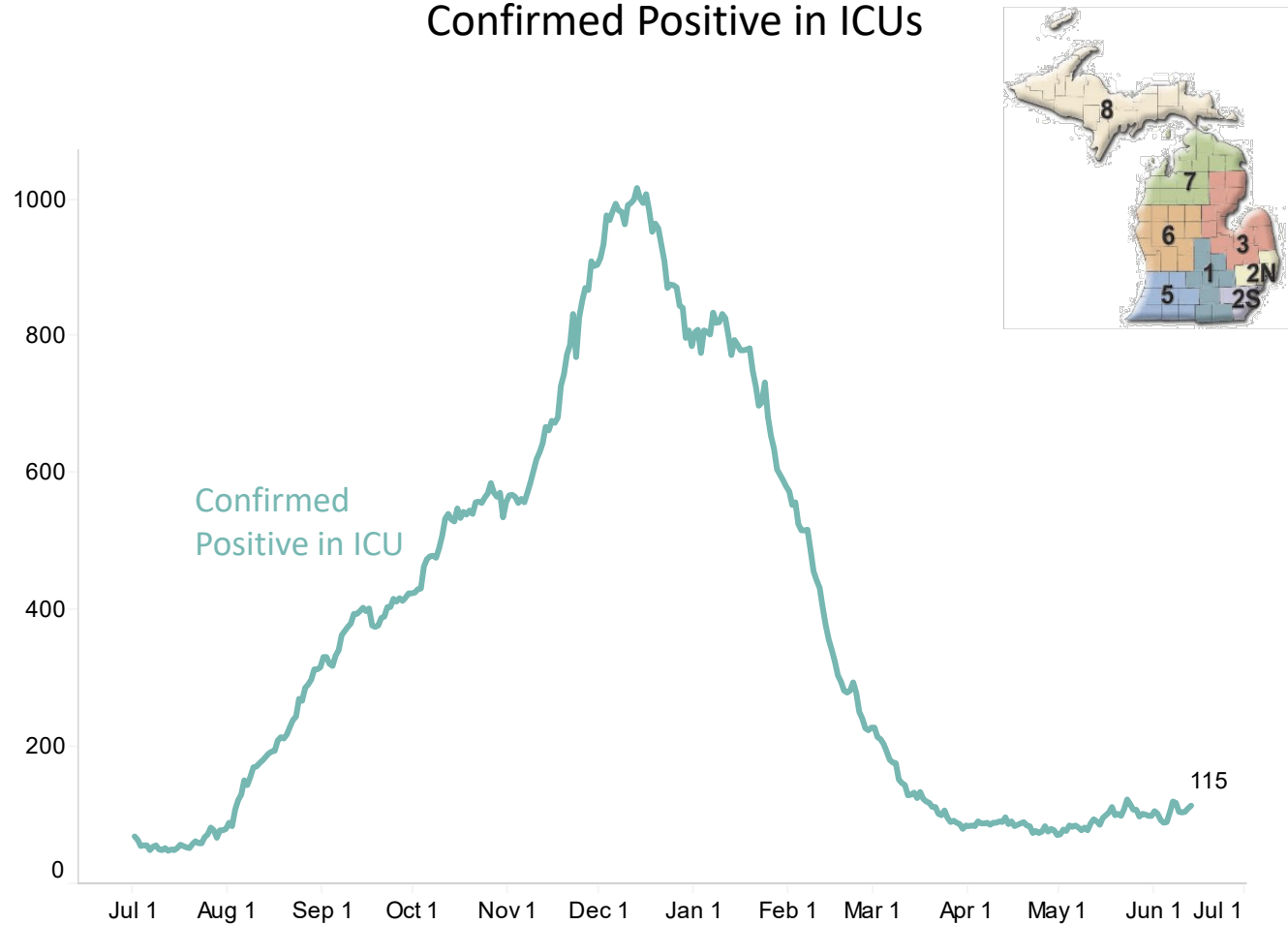
Overall, the census of COVID+ patients in ICUs has increased by 10% from last week. There are 115 COVID+ patients in ICU beds across the state.

COVID+ ICU census has decreased or remained flat in Regions 2N, 2S, 3 and 7. ICU census has increased in Regions 1, 5, 6 and 8. ICU occupancy is below 85% in all regions.

Region	Adult COVID+ in ICU (% Δ from last week)	ICU Occupancy	% of ICU beds COVID+
Region 1	17 (89%)	82%	9%
Region 2N	18 (-22%)	63%	3%
Region 2S	38 (0%)	73%	6%
Region 3	12 (-8%)	81%	4%
Region 5	9 (125%)	75%	5%
Region 6	7 (75%)	77%	3%
Region 7	11 (-8%)	81%	8%
Region 8	3 (200%)	54%	5%

Statewide Hospitalization Trends: Pediatric COVID+ Census

Hospitalization Trends 1/1/2021 – 6/6/2022
Pediatric Hospitalizations, Confirmed
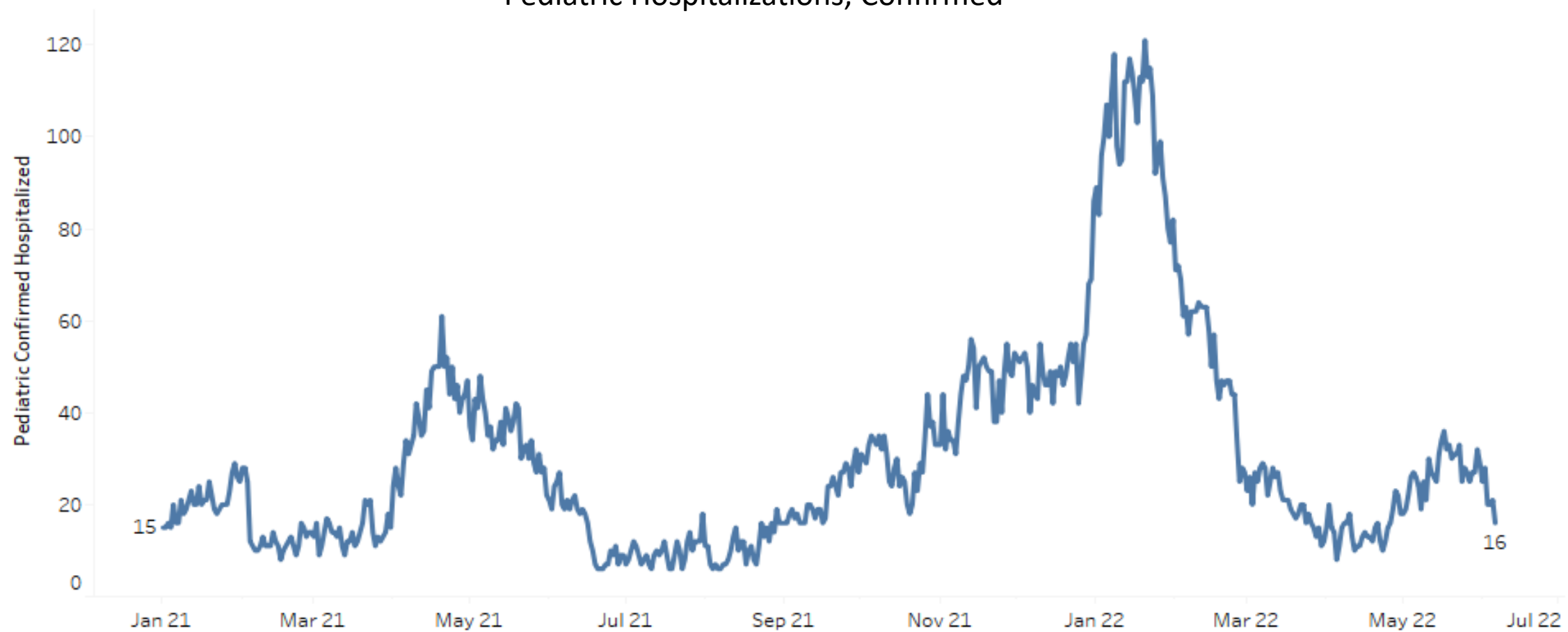
COVID-19 Hospitalization and Severe Illness Trends

Omicron

2020 Holiday wave

Alpha wave

Delta

Previous surges saw ICU levels here

Hospitalizations

ICU
Vent.

5K
4K
3K
2K
1K
0K

Aug 20   Oct 20   Dec 20   Feb 21   Apr 21   Jun 21   Aug 21   Oct 21   Dec 21   Feb 22   Apr 22   Jun 22
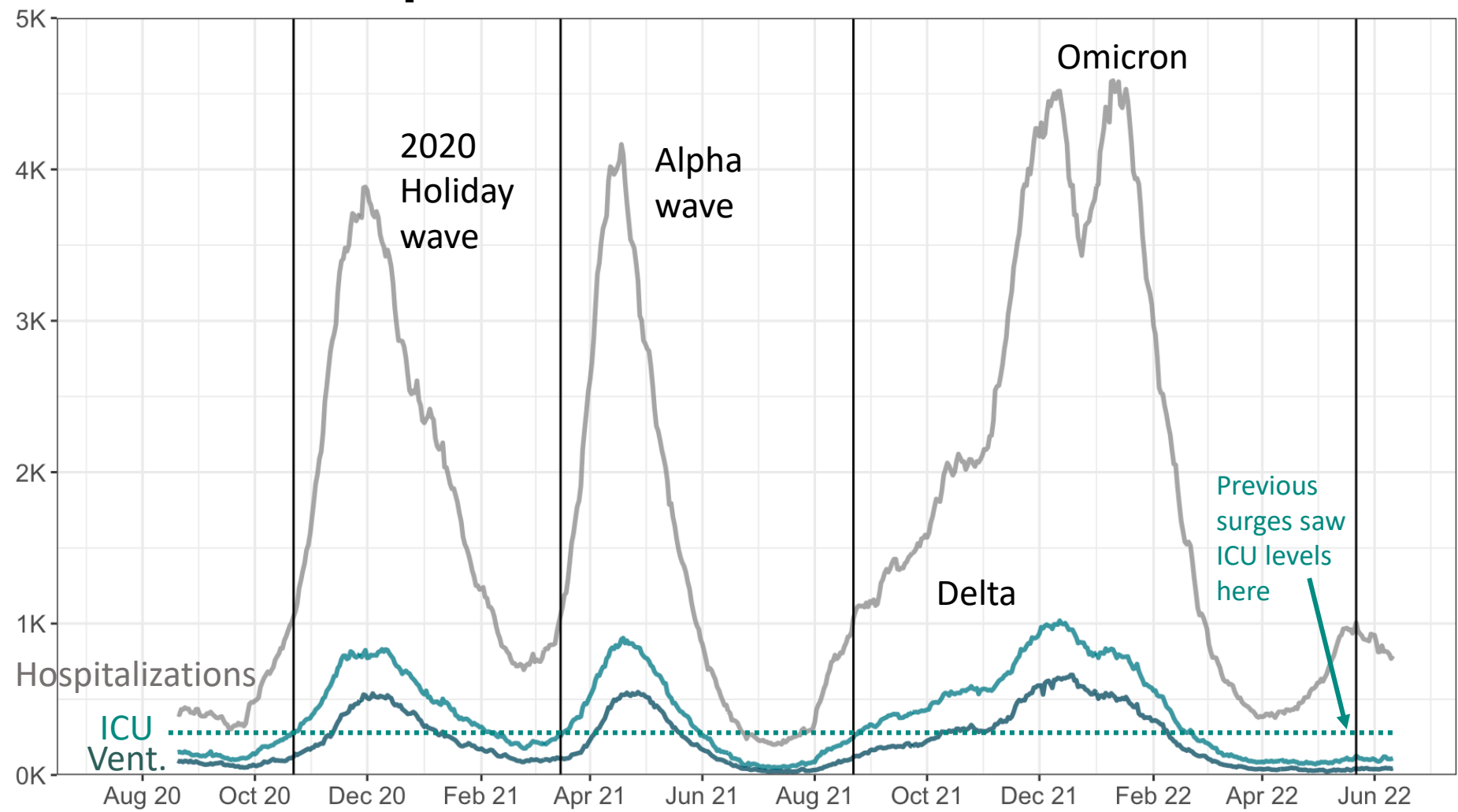
— vertical line indicates where hospitalizations reached 1K in previous increases

— Adult Confirmed Positive COVID-19 Hospitalizations
— Adult Confirmed Positive COVID-19 ICU Hospitalizations
— Hospitalized and Ventilated with COVID-19

- In all prior surges we have seen a simultaneous increase in patients hospitalized with COVID-19 vs patients in the ICU with COVID-19 vs patients on ventilators with COVID-19.

- In the current surge we have seen a smaller increase in ICU and patients on ventilators, indicating that most hospitalized patients are not experiencing as severe disease.

- This may be attributed in part to vaccinations and therapeutics.

Data Source: EM Resource data as of 6/10/22

Currently seeing the lowest percentage of hospitalizations requiring ICU or ventilator since September 2020

Percent hospitalizations in ICU

Percent hospitalizations on ventilator
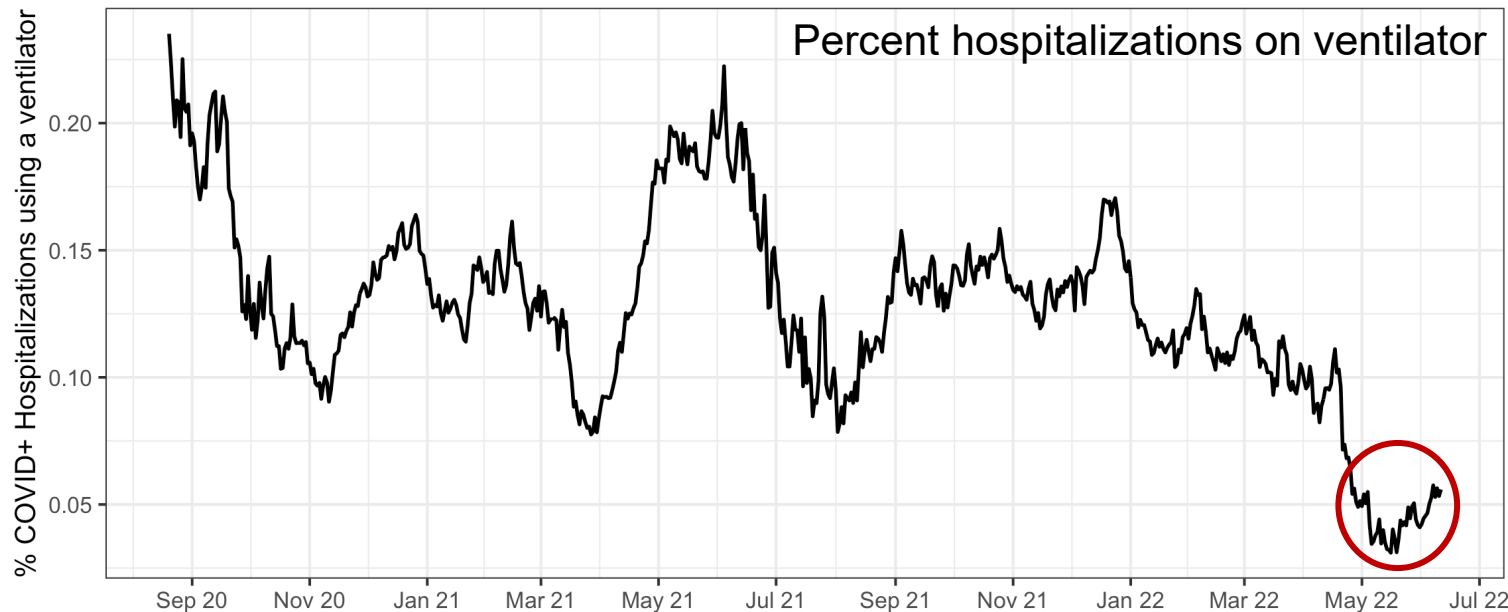
- Both metrics have seen a general decline in the proportion compared to the total adult patients hospitalized between September 2020 and May 2022, with a steeper decrease in the last couple of months

- Currently seeing near the lowest percent of hospitalizations in ICU or ventilator since September 2020 (red circle)

- While these are lagging indicators, it is not expected that ICU admissions or ventilator usage during this wave will exceed that of previous waves

Data Source: EM Resource data as of 6/10/22

Average new deaths have decreased for those over the age of 80

Daily COVID-19 deaths in confirmed and probable cases per million by age group (7 day rolling average)

Legend:
- 0-19
- 20-29
- 30-39
- 40-49
- 50-59
- 60-69
- 70-79
- 80+
- Total
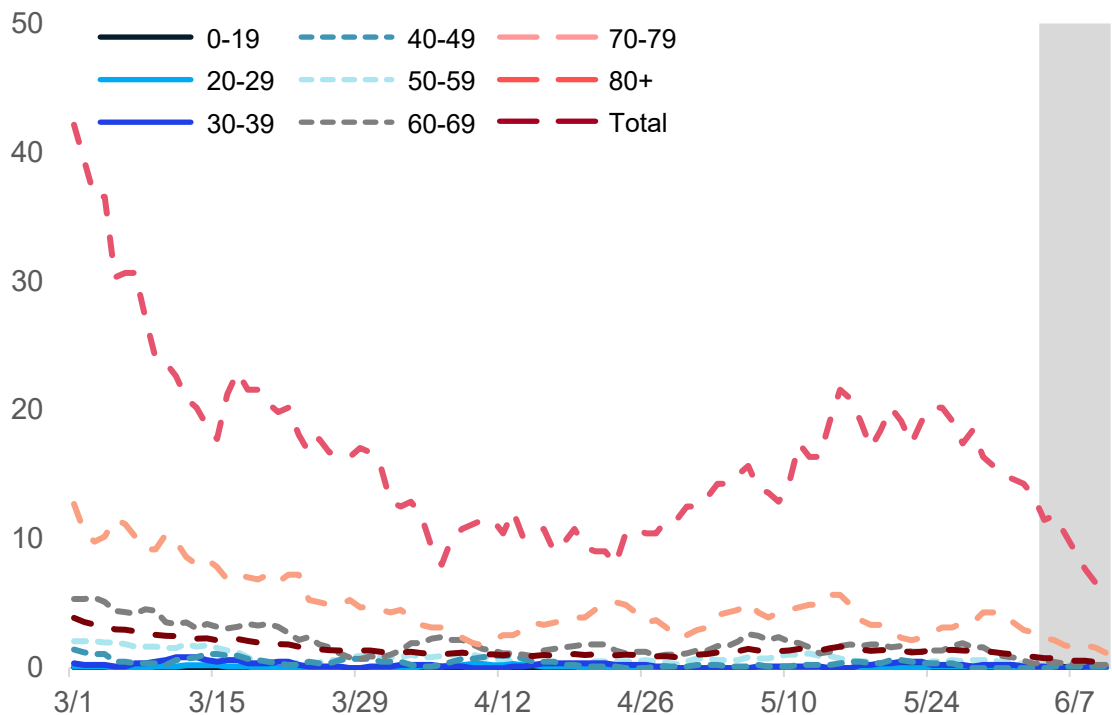
Total COVID-19 deaths in confirmed and probable cases by age group (past 30 days, ending 6/3/2022)

- 10.5% of deaths below age sixty

0-19	20-29	30-39	40-49	50-59	60-69	70-79	80+
1-5	1-5	7	7	15	39	60	174
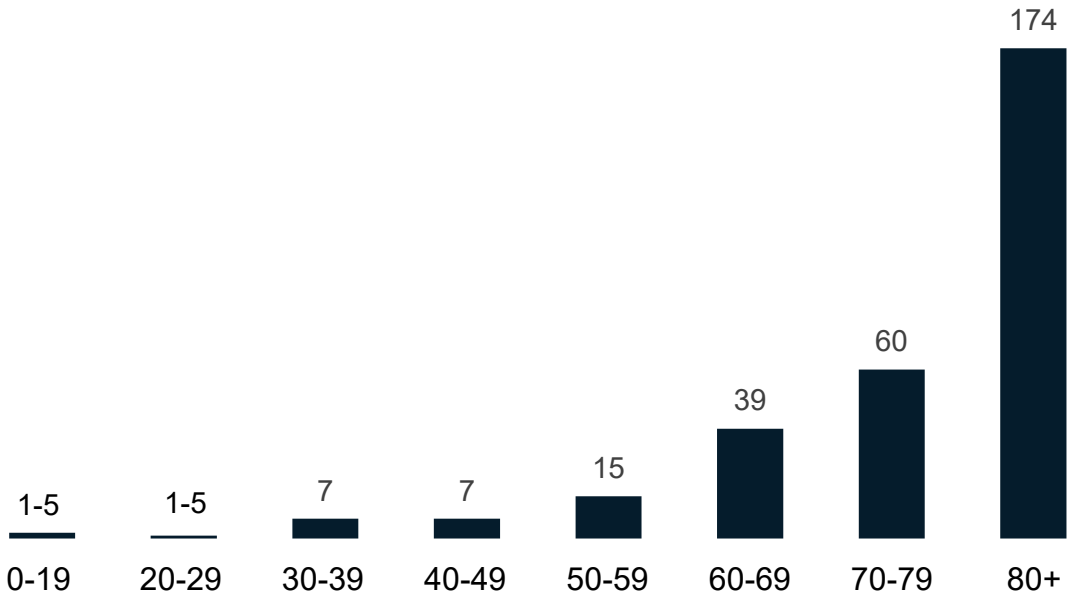
- Through 6/3, the 7-day avg. death rate has decreased (13.2 deaths per million people) for those over the age of 80

- In the past 30 days, there are fewer than 20 among confirmed and probable COVID-19 cases under the age of 40

- 30-day proportion of deaths among those under 60 years of age is 10.5%. This proportion has decreased incrementally over the last 4 weeks (last week 11.4%)

Note: Death information sourced from MDHHS and reflects date of death of confirmed and probable cases.
Source: MDHHS – Michigan Disease Surveillance System (MDSS)

Daily average deaths per million people by race and ethnicity have plateaued or are decreasing

Average daily deaths per million people by race

Legend:
- American Indian/Alaska Native
- Black/African American
- Asian/Pacific Islander
- White
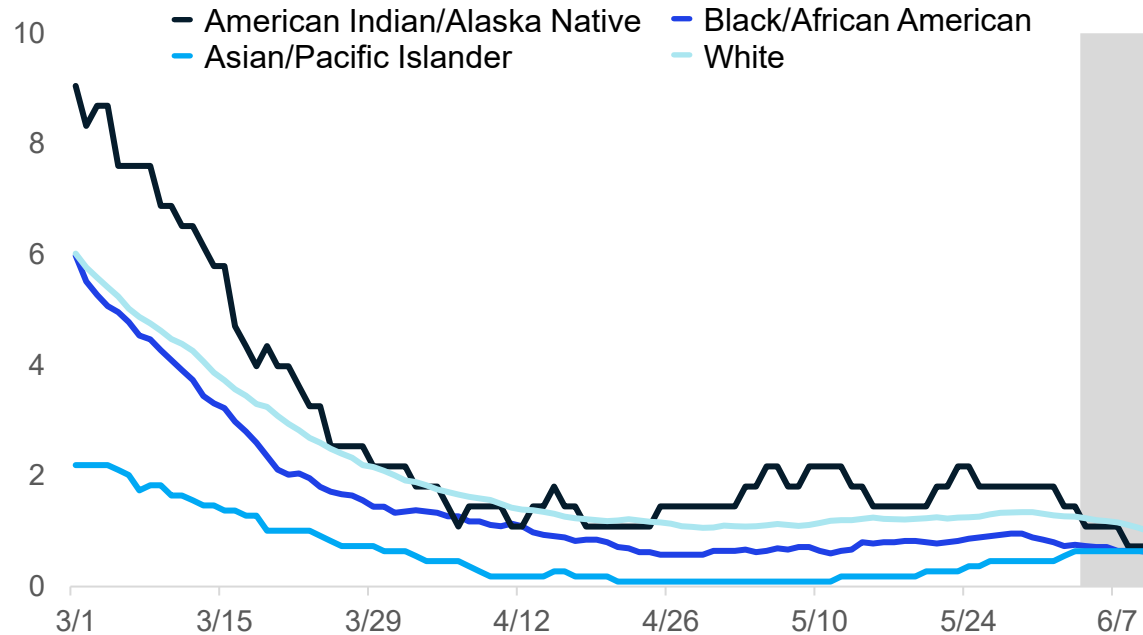
Average daily deaths per million people by ethnicity

Legend:
- Hispanic or Latino
- Not Hispanic or Latino
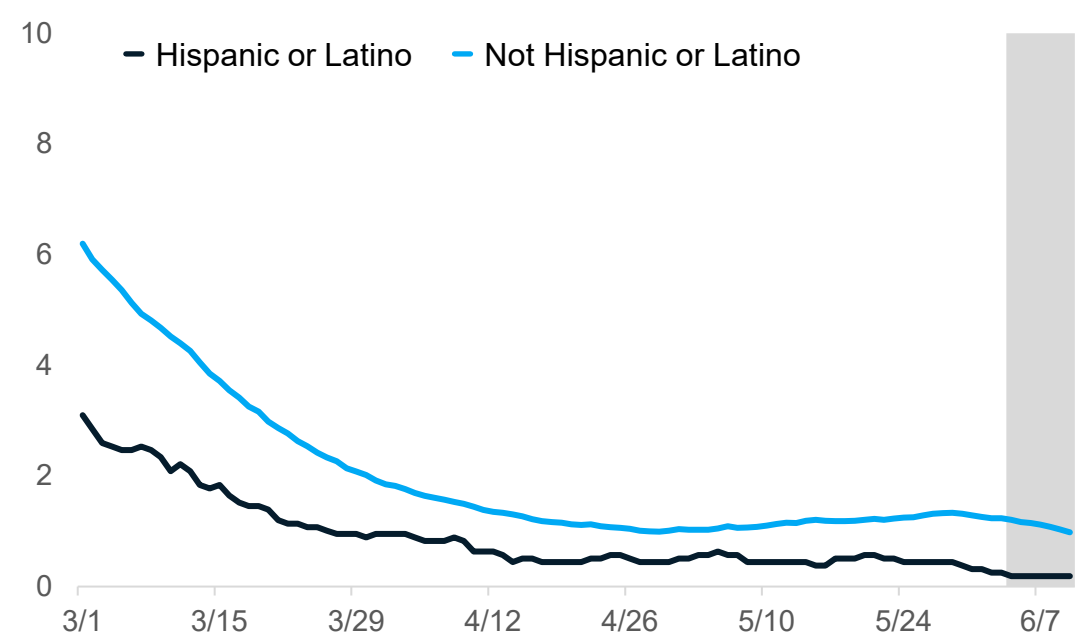
- Deaths are lagging indicator of other metrics
- Currently, the American Indian/Alaskan Native population have the highest death rate (1.4 deaths/million)

Note: Death information sourced from MDHHS and reflects date of death of confirmed and probable cases.
Source: MDHHS – Michigan Disease Surveillance System

CDC projections suggest hospitalizations and deaths likely to stay plateaued or show slight declines through June in Michigan
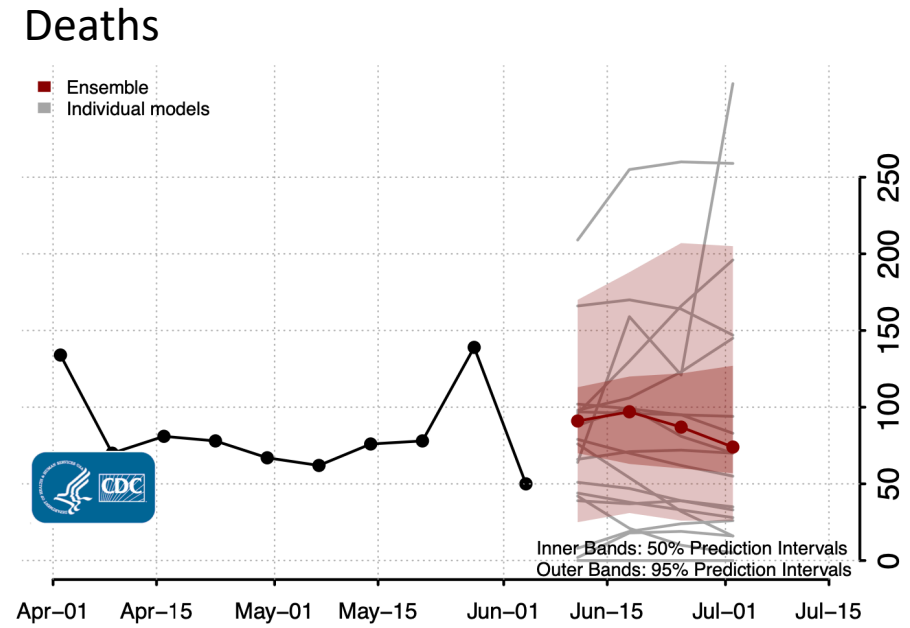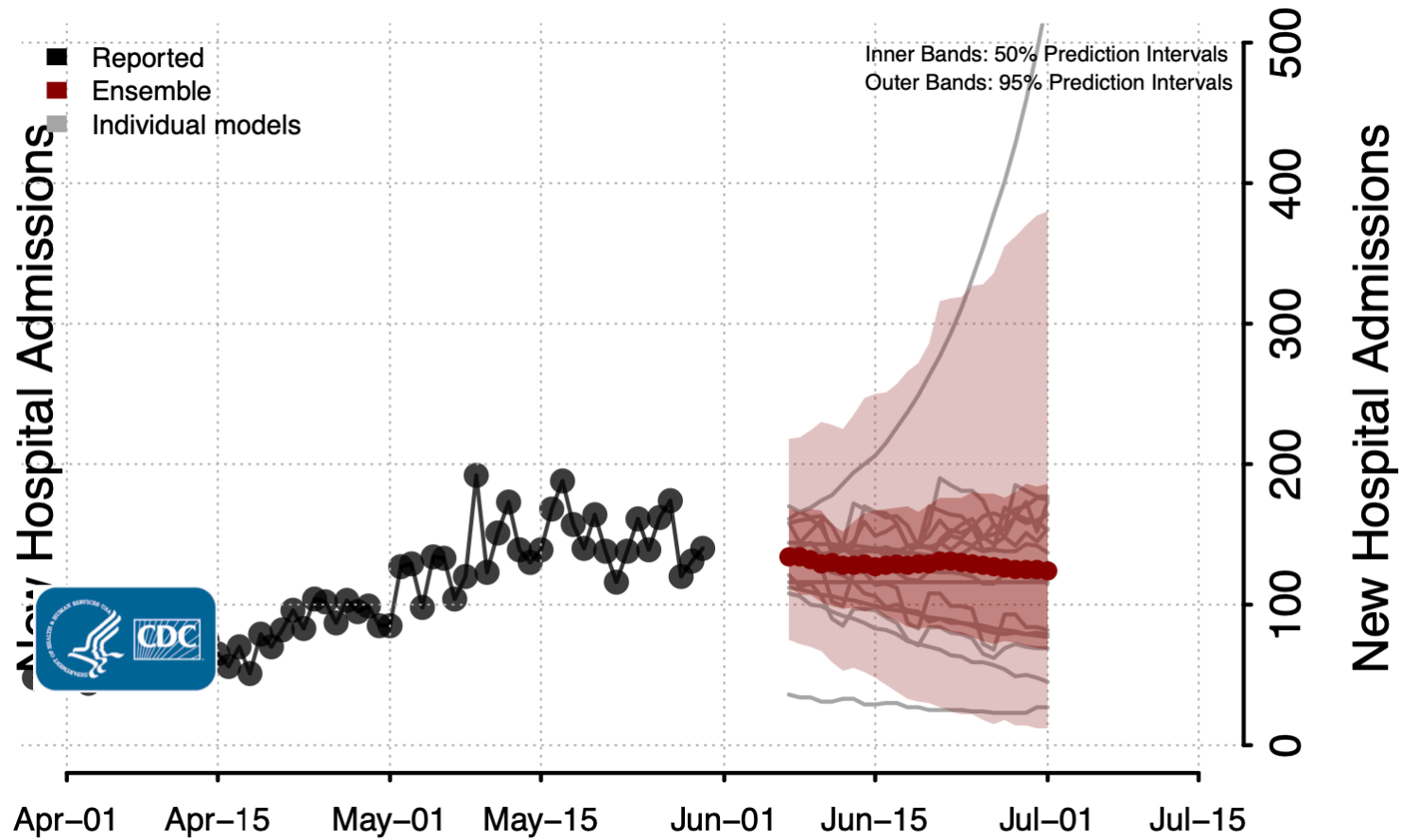
Source: CDC forecasting hub forecasts as of June 6, 2022.

Another view: severity wave by wave

- In previous waves, when hospitalizations reached ~1000 patients (top panel), ICU and ventilator use were higher than they are currently (bottom two panels yellow vs. others)

- Overall, the ICU and ventilator usage is lower than would be expected based on previous surges
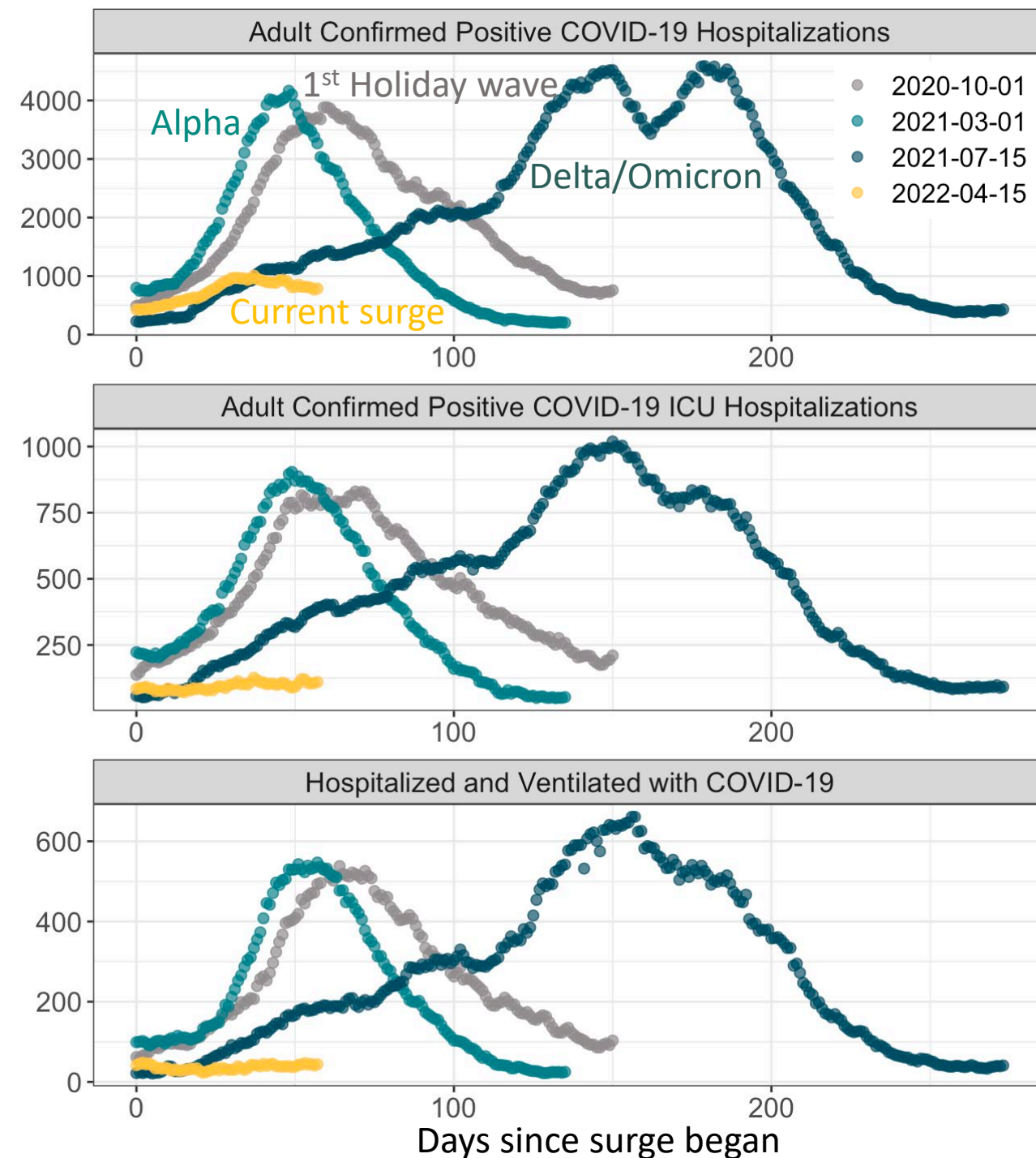
Data Source: EM Resource data as of 6/10/22

Scenario Hub Projections: looking ahead to the next surge in Michigan

- Updated Model Scenarios (Round 13)

- Scenarios were defined in Feb 2022 (before BA.2 wave)

- Wide range of uncertainty, but suggests we may see a surge this fall/winter

- Source: COVID Modeling Scenario Hub. Uncertainty levels: **95%**

— Optimistic waning, New immune escape variant

— Pessimistic waning, New immune escape variant

— Optimistic waning, No immune escape variant

— Pessimistic waning, No immune escape variant

Model Specific Projections, by Scenario - Round 13 - Michigan
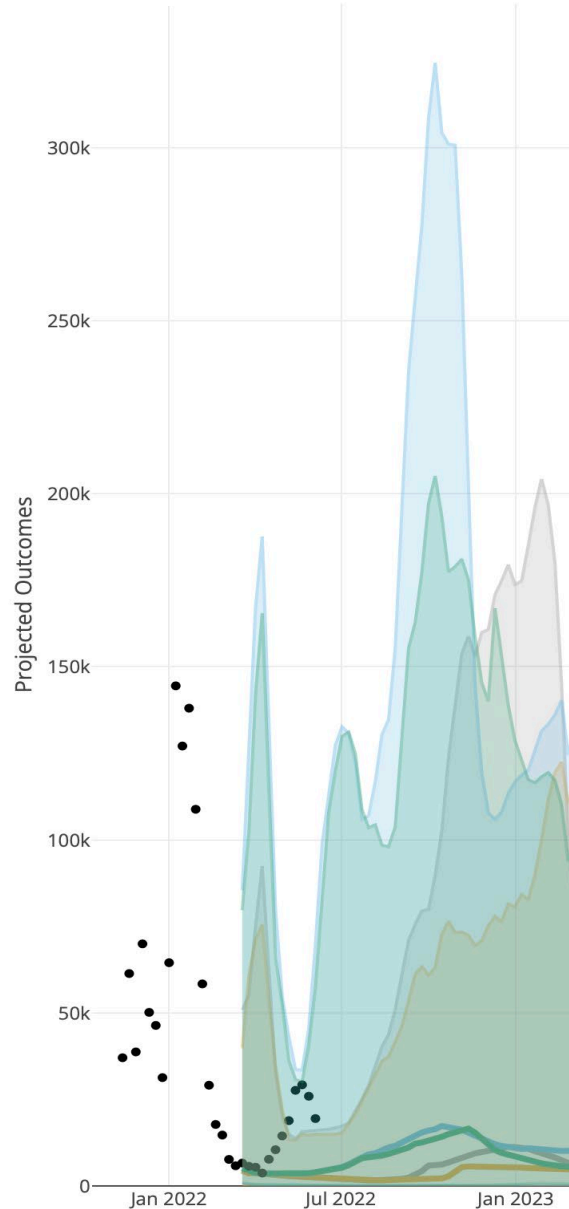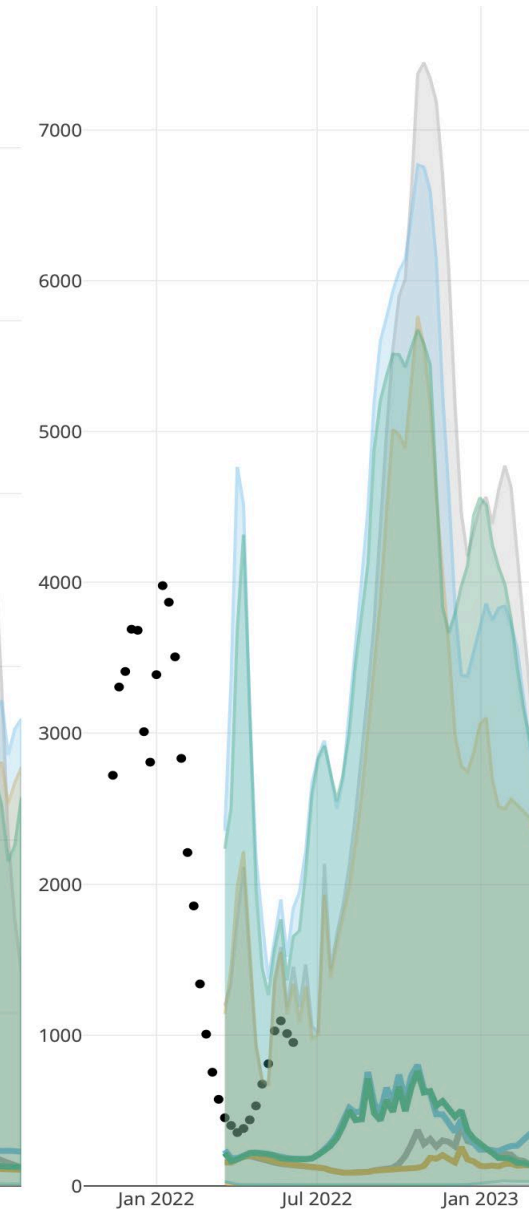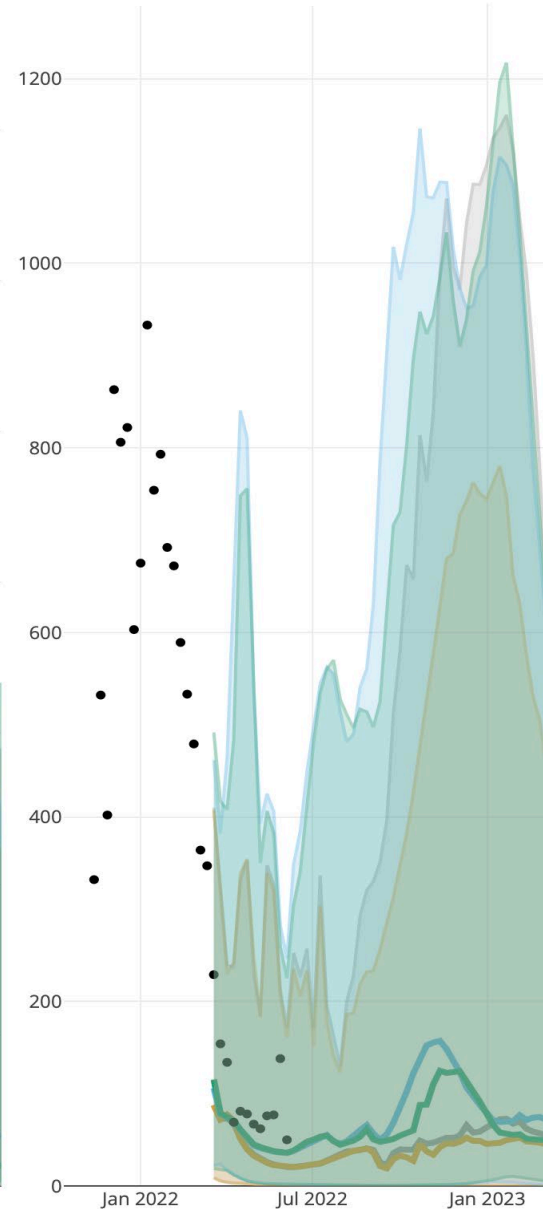
Scenario Hub Projections: looking ahead to the next surge in Michigan

- Updated Model Scenarios (Round 13)

- Scenarios were defined in Feb 2022 (before BA.2 wave)

- Wide range of uncertainty, but suggests we may see a surge this fall/winter

- Source: COVID Modeling Scenario Hub. Uncertainty levels: **50%**

— Optimistic waning, New immune escape variant

— Pessimistic waning, New immune escape variant

— Optimistic waning, No immune escape variant

— Pessimistic waning, No immune escape variant

Model Specific Projections, by Scenario - Round 13 - Michigan
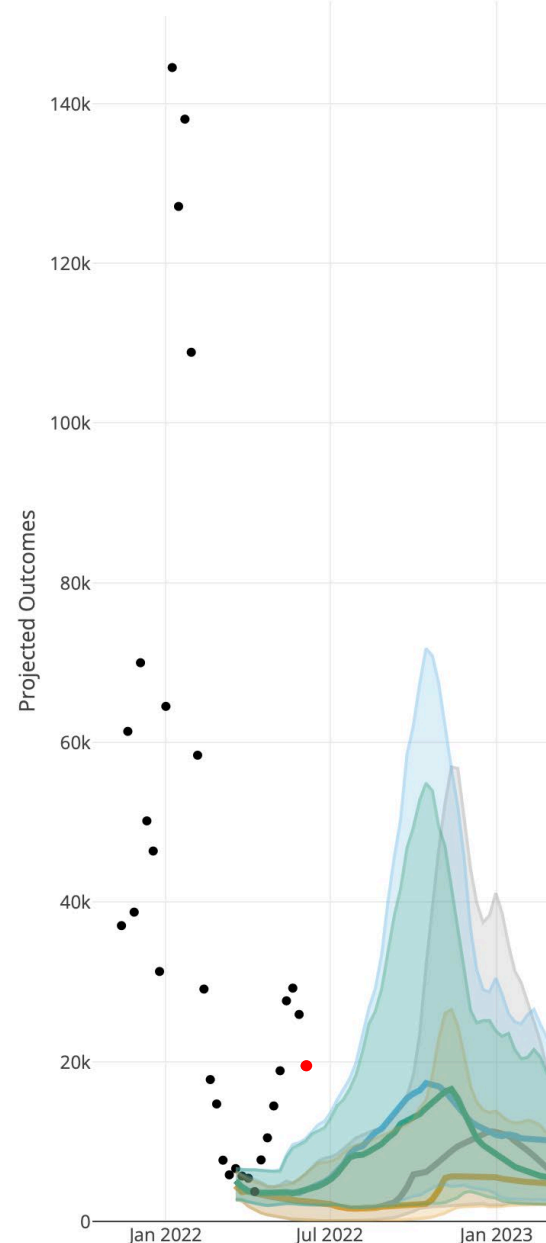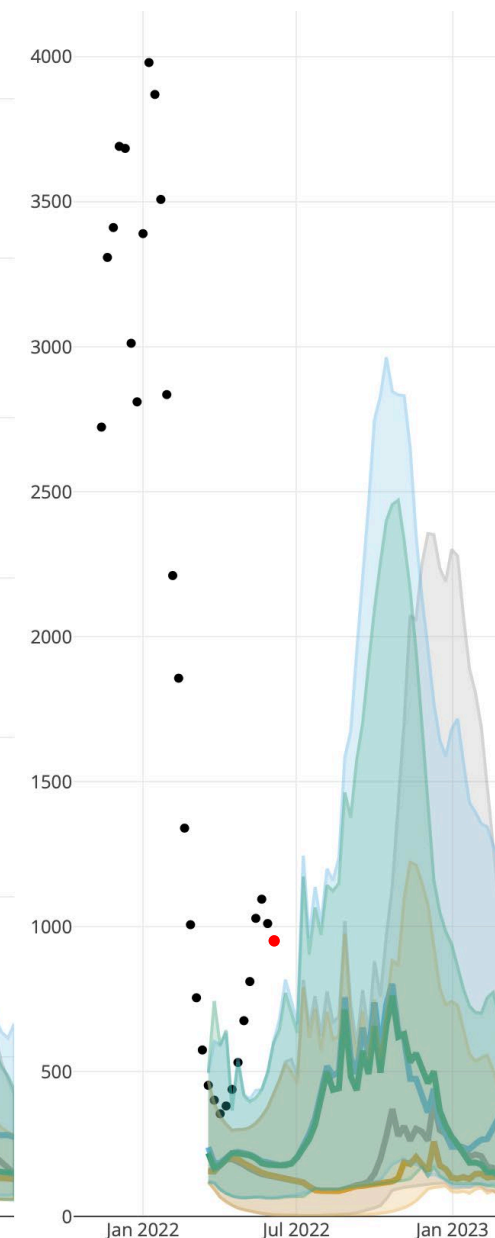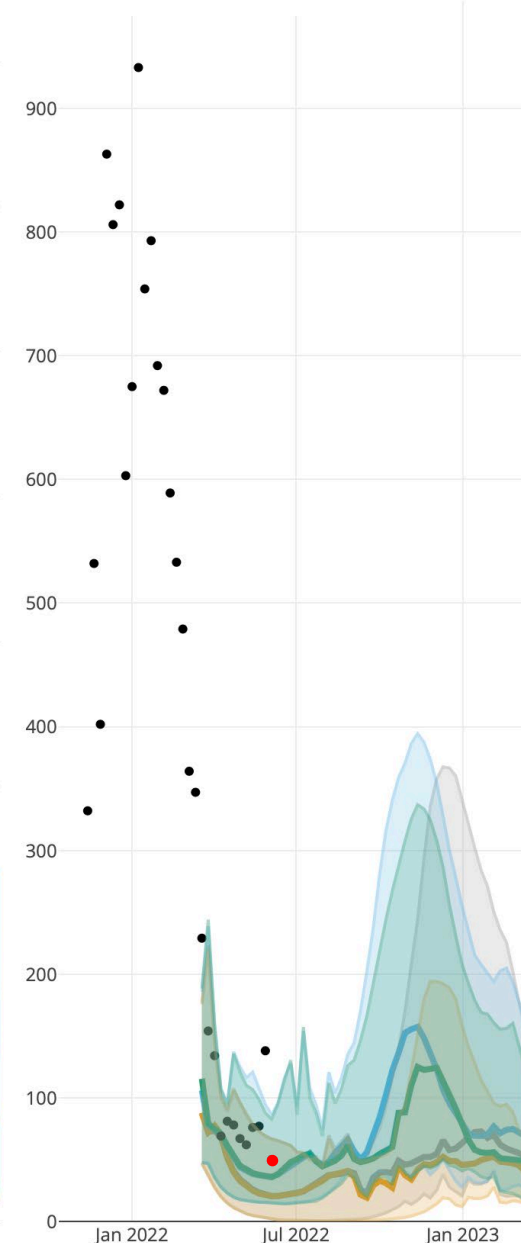
Harm Reduction: Key Messages

Empowering community members to make best choices for their individual circumstances and to be prepared by making a COVID plan

- Michiganders can take advantage of local, state, and national COVID-19 resources

- Get tested, and if positive, seek care with therapeutics (e.g., antibodies or antiviral medications)
  - Cumulative therapeutic availability and administration has increased dramatically since April
  - Talk to your doctor about whether you should get antibody or antiviral treatment, and where you can find treatment.
  - Therapeutics are authorized for people who meet select criteria

- Vaccinations remain the best way to protect from COVID-19, especially from severe disease
  - Over 6.7 million Michiganders have received at least one dose (67.4%)
  - 55.1% of fully vaccinated Michiganders have received at least one booster
  - 26% of people in Michigan (556K+) with a first booster dose have received a second booster dose

- Improving ventilation in schools can help reduce spread of COVID-19
  - School-based strategies to improve ventilation are associated with reduced incidence of COVID-19 in schools.
  - Substantial federal resources are available to improve ventilation in schools

Federal & Michigan websites assist COVID positive residents find treatment

COVID-19 resources available on federal website: COVID.gov

Test-to-Treat program simplifies access to COVID treatment:
Find a Test-to-Treat location near you

- If you have COVID-19 symptoms, do not wait to get treated
- You must take oral COVID-19 medication within 5 days of your first COVID-19 symptoms
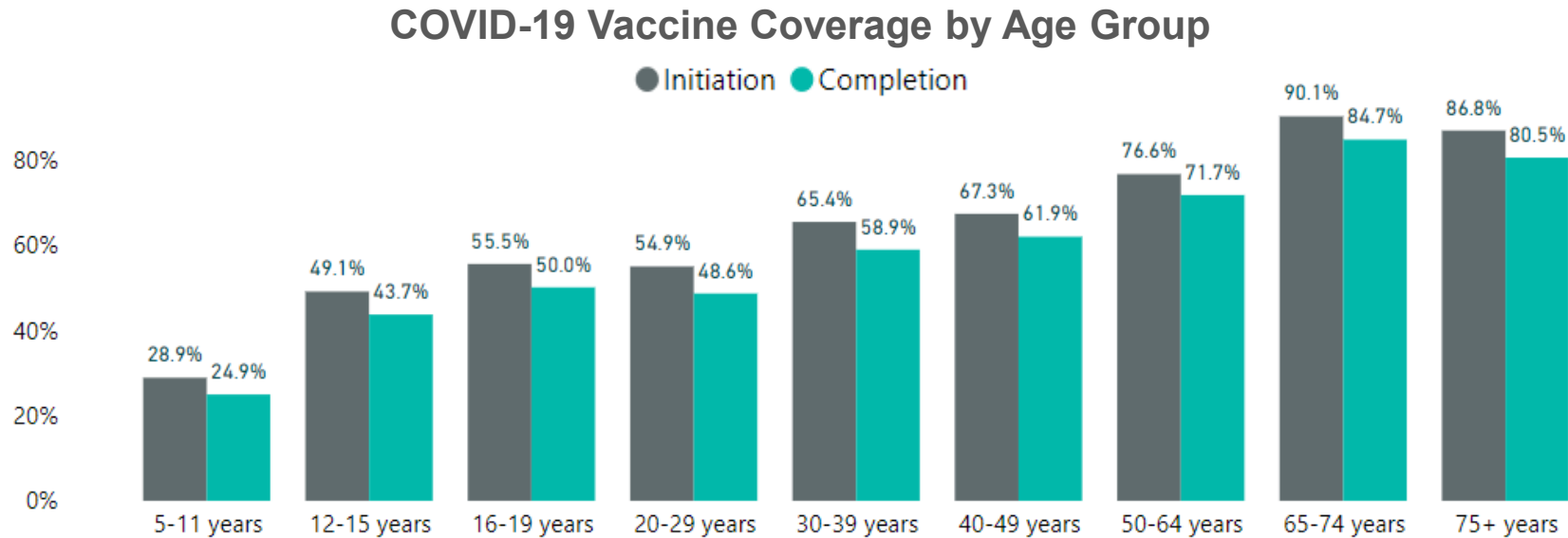- Use the tool to find a location that is right for you

Source: Screen capture of Michigan Test-to-Treat sites from linked website
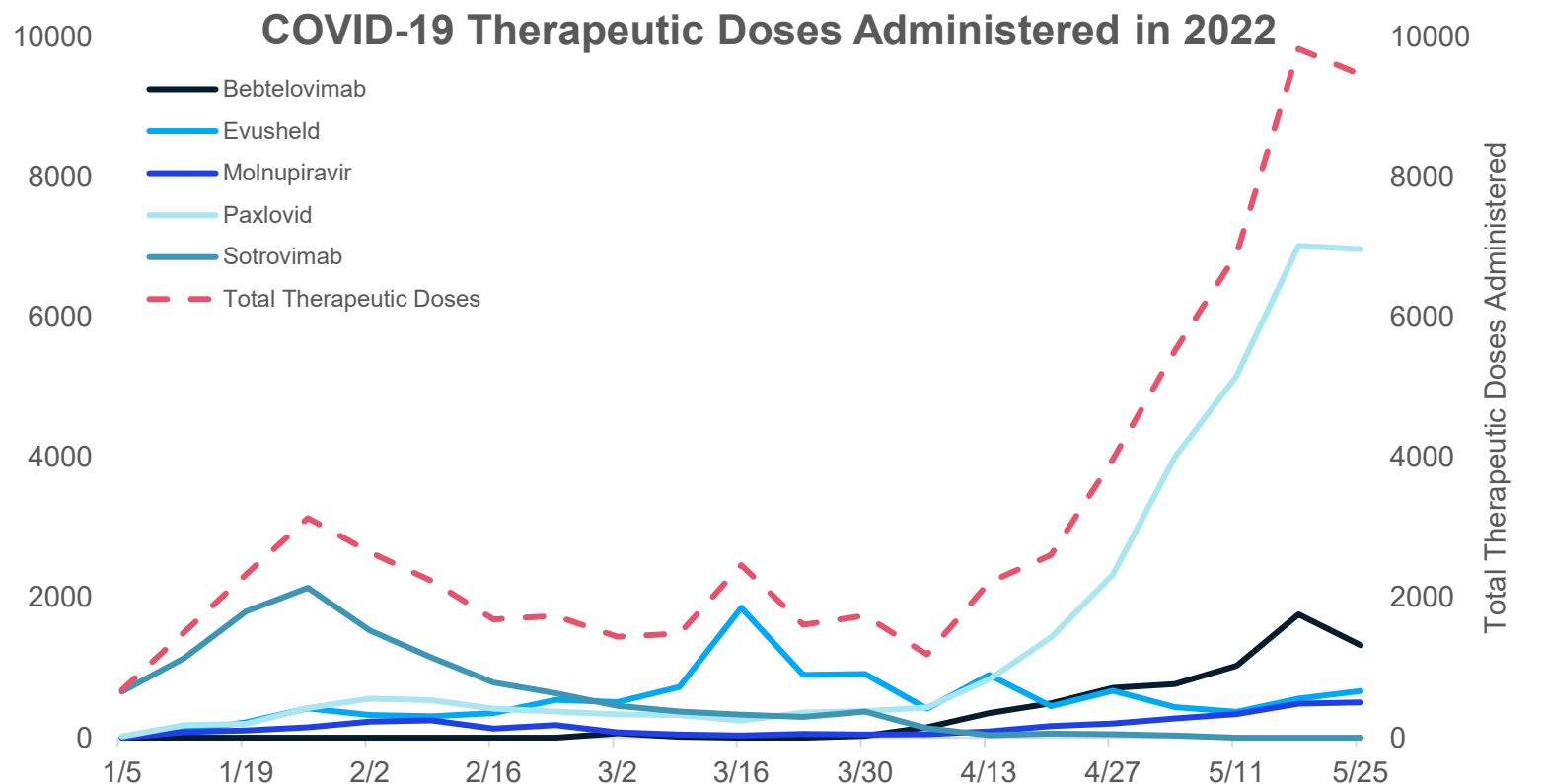
Source: HHS - Tiberius
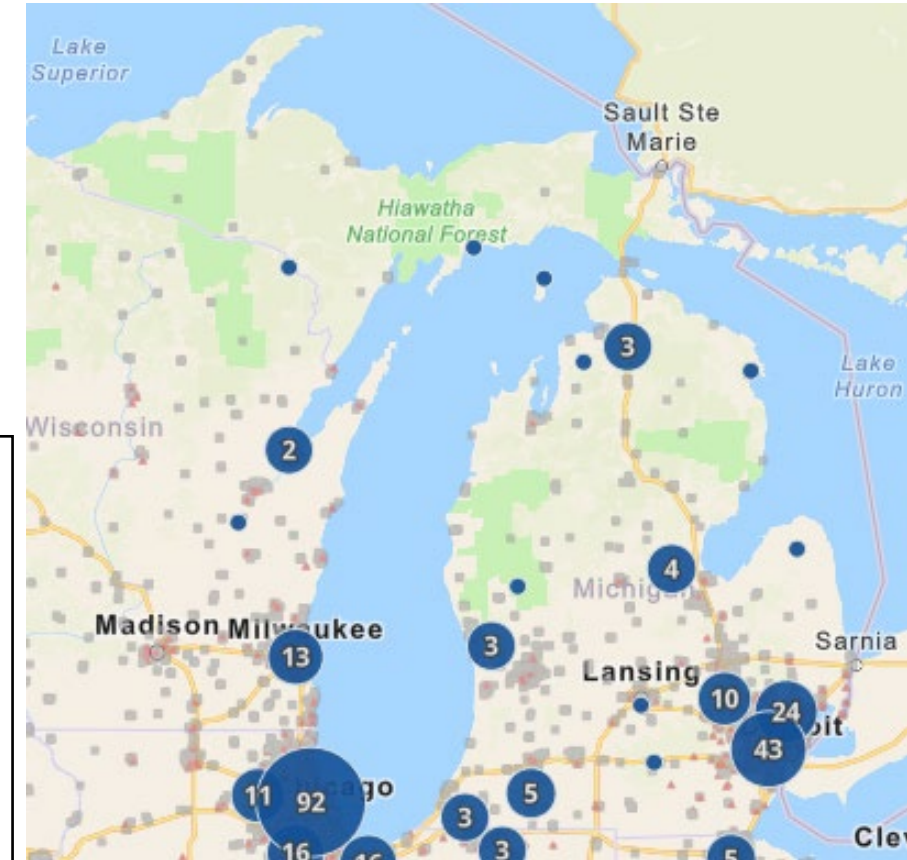
Therapeutic administration increased during Michigan's Spring Omicron surge. Supply limitations in January 2022 required strategic distribution and should not be compared directly.

Vaccinations and Boosters

- Over 16.2 million COVID-19 vaccine doses have been administered in Michigan
  - Over 6.7 million Michiganders have received at least one dose (67.4%)
  - Over 6 million Michiganders have completed a primary series (60.6%)
  - Over 3.3 million additional/booster doses have been administered in Michigan
    - 55.1% of the fully vaccinated population has received a booster
    - 77.2% of the fully vaccinated population 65 years of age or older has received a booster
  - Nearly 556,711 Michiganders 50 years of age or older who have received a first booster dose have received second booster (26%)

COVID-19 Vaccine Coverage by Age Group

● Initiation ● Completion

Age Group	Initiation	Completion
5-11 years	28.9%	24.9%
12-15 years	49.1%	43.7%
16-19 years	55.5%	50.0%
20-29 years	54.9%	48.6%
30-39 years	65.4%	58.9%
40-49 years	67.3%	61.9%
50-64 years	76.6%	71.7%
65-74 years	90.1%	84.7%
75+ years	86.8%	80.5%

https://www.michigan.gov/coronavirus/0,9753,7-406-98178_103214_103272-547150--,00.html

https://covid.cdc.gov/covid-data-tracker/#vaccinations

Those Aged 5 to 11 should get a COVID-19 Booster when Eligible

CDC Recommends Booster doses for those 5 years of age and older, 5 months after completion of a primary vaccine series

Those who received their second dose by end of December 2021 are eligible for a booster

Initiation and Completion Trends in 5–11-year-olds
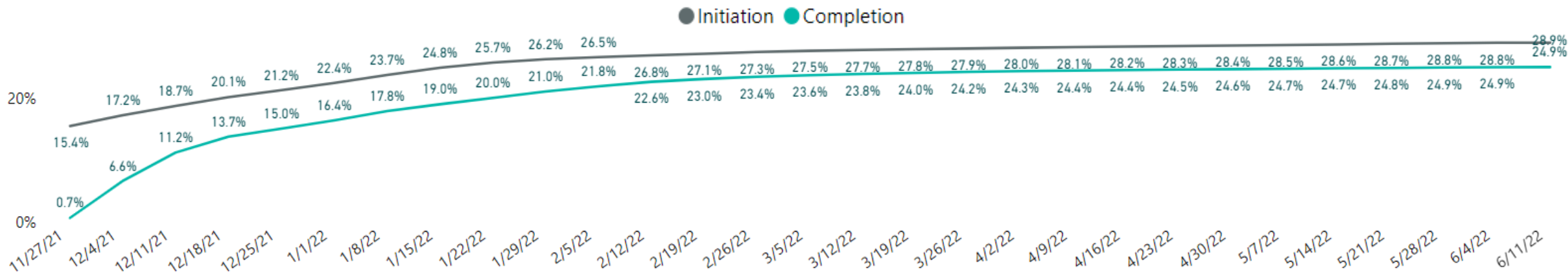
● Initiation ● Completion

https://www.michigan.gov/coronavirus/0,9753,7-406-98178_103214_103272-547150--,00.html
https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/children-teens.html
https://www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html
https://www.cdc.gov/coronavirus/2019-ncov/vaccines/booster-shot.html#when-you-can-get-booster

Additional Doses and Booster Coverage
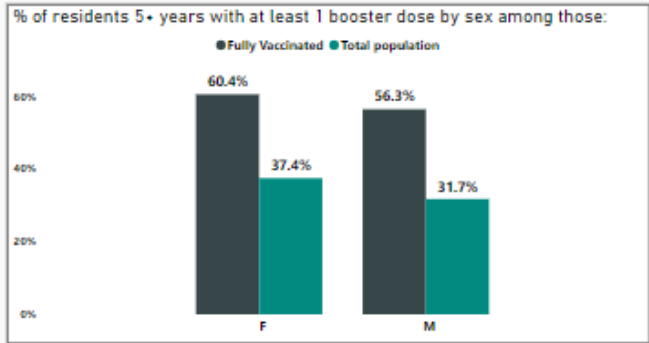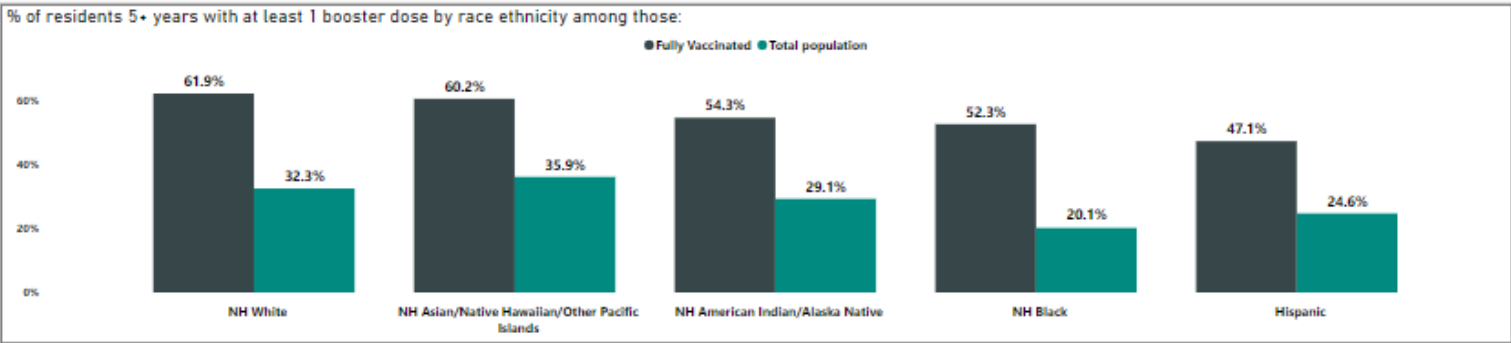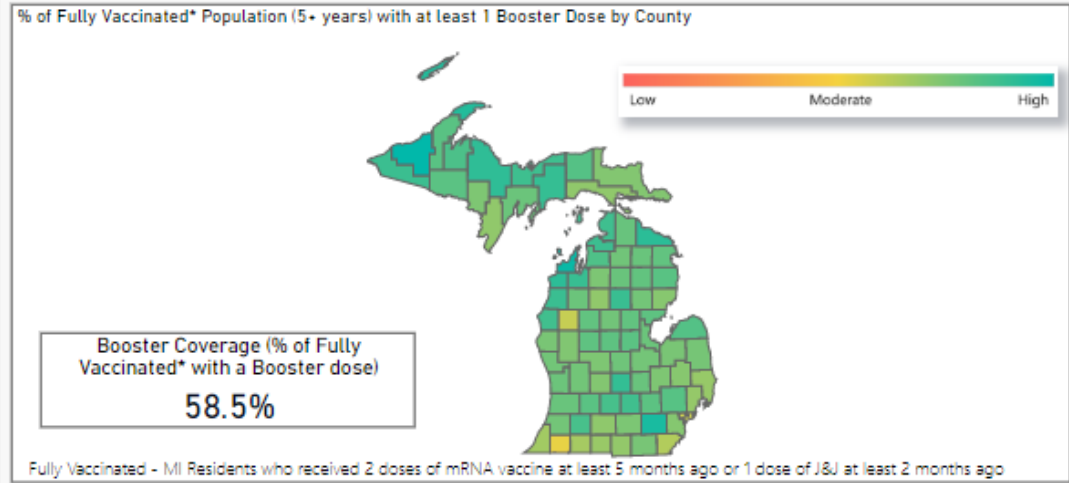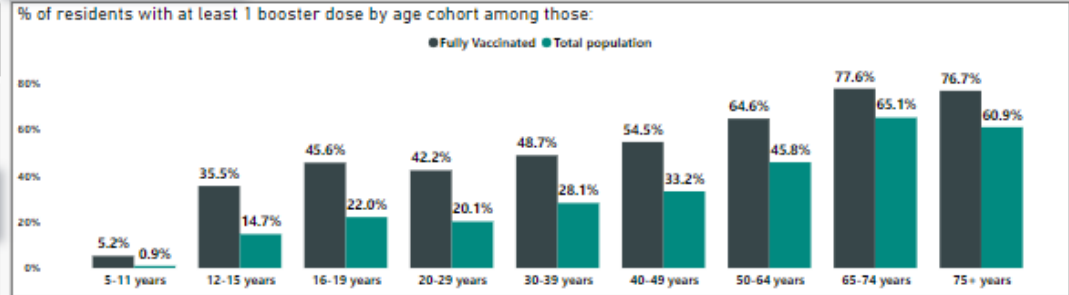
Those who are eligible, must receive a second booster in order to stay up to date with their COVID-19 vaccine.

Four months after receipt of a first booster dose of Pfizer BioNTech, Moderna or Janssen (Johnson & Johnson), the following are now authorized

- A second booster dose of the Pfizer-BioNTech COVID-19 vaccine or Moderna COVID-19 vaccine **should** be administered to individuals 50 years of age and older.

- A second booster dose of the Pfizer-BioNTech COVID-19 vaccine **should** be administered to moderately or severely immunocompromised individuals 12 years of age and older.

- A second booster dose of the Moderna COVID-19 vaccine **should** be administered to moderately or severely immunocompromised individuals 18 years of age and older.

- A new CDC Tool is available, to help persons understand if they are up to date or eligible for another COVID-19 vaccine dose: https://www.cdc.gov/coronavirus/2019-ncov/vaccines/booster-shot.html

When Are You Up to Date?

You are **up to date** with your COVID-19 vaccines when you have received all doses in the primary series and all boosters recommended for you, when eligible.

- Vaccine recommendations are different depending on your age, the vaccine you first received, and time since last dose, as shown below.
- Learn more about COVID-19 vaccine recommendations specifically for people who are moderately or severely immunocompromised.

https://www.cdc.gov/coronavirus/2019-ncov/vaccines/stay-up-to-date.html

Testing

Keep a supply of at-home tests

- 8 rapid tests are available through the third round of the USPS national at home test distribution: https://special.usps.com/testkits

Consider testing before and after travel or large events/gathering

Test early and seek care

Library Partnership for At-Home Test

> Contain COVID   >   Test   >   Library Partnership for At-Home Test

MDHHS has partnered with several libraries across the state of Michigan to provide free at-home COVID-19 test kits to Michiganders.

Individuals and families should consider seeking out COVID-19 at-home test kits if they are considered more vulnerable to sever health outcomes from contracting COVID-19 or live, work, and socialize in group settings.

Additional information on COVID-19 self-testing can be found here: Self-Testing_Fast_Facts_v5_744280_7.pdf (michigan.gov)

Households are eligible to receive up to 5 free at-home test kits from participating library partners while supplies last. Participating library partners are listed below:
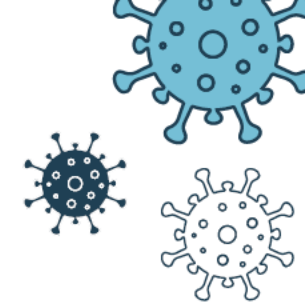
Library	Address	City	Zip
Amy Van Andel Library (ADA)	7215 Headley SE	Ada	49301
Adrian District Library	143 E. Maumee St.	Adrian	
Albion District Library	501 S Superior St.	Albion	
Allegan District Library	331 Hubbard St.	Allegan	49010

Have questions?
Chat with Robin

https://www.michigan.gov/coronavirus/contain-covid/test/library-partnership-for-at-home-test

Make a COVID-19 Plan

Make a plan for vaccination or learn if you are eligible for boosters.

- Ages 5 and older can get vaccinated.
- Ages 12 and older can get the booster.
- Ages 50 and older, or 12 and older and moderately to severely immunocompromised, can schedule a second booster.

Learn more about vaccines and whether you're up to date at Michigan.gov/COVIDVaccine.

Keep a supply of well-fitting masks.

Masks are helpful tools to reduce COVID-19 transmission, especially if:

- You are unwell or test positive for COVID-19.
- You have been exposed to someone with COVID-19.
- You are concerned about the risk of transmission in a particular setting. Respect that others may have a risk different than yours.

Learn more about masking at Michigan.gov/MaskUp.

Keep a supply of over-the-counter COVID-19 tests.

Tests are useful for early detection of COVID-19, especially if:

- You have symptoms of or have been exposed to COVID-19.
- You are traveling or will be attending a large or unmasked gathering. Test before and after attending large events.

Over-the-counter tests are available at libraries and schools through MIbackpack, also through federal distribution programs.

Learn more about COVID-19 testing at Michigan.gov/COVIDTest.

COVID-19 Self-test kit

Learn if you are eligible for COVID-19 therapeutics.

- Talk to a primary care provider about whether you are eligible for preventative antibodies or for COVID-19 antiviral treatment if you become infected.

Learn more about COVID-19 therapeutics at Michigan.gov/COVIDTherapy.

CDC Study: Improving ventilation can help reduce spread of COVID-19. Summertime is an opportunity for schools to improve ventilation before the coming school year.

Ventilation Improvement Strategies Among K–12 Public Schools — The National School COVID-19 Prevention Study, United States, February 14–March 27, 2022

What is already known about this topic?
School-based strategies to improve ventilation are associated with reduced incidence of COVID-19 in schools. Substantial federal resources are available to improve ventilation in schools.

What is added by this report?
Among a nationally representative sample of U.S. K–12 public schools, higher-cost and resource-intensive ventilation improvement strategies, such as using portable high-efficiency particular air (HEPA) filtration systems in classrooms were less frequently reported. Overall, rural and mid-poverty schools were the least likely to report implementing several resource-intensive ventilation strategies.

What are the implications for public health practice?
Ensuring use of ventilation improvement resources might reduce transmission of SARS-CoV-2 and other infectious diseases in schools. Focusing support on schools least likely to have implemented resource-intensive ventilation strategies might facilitate equitable implementation.
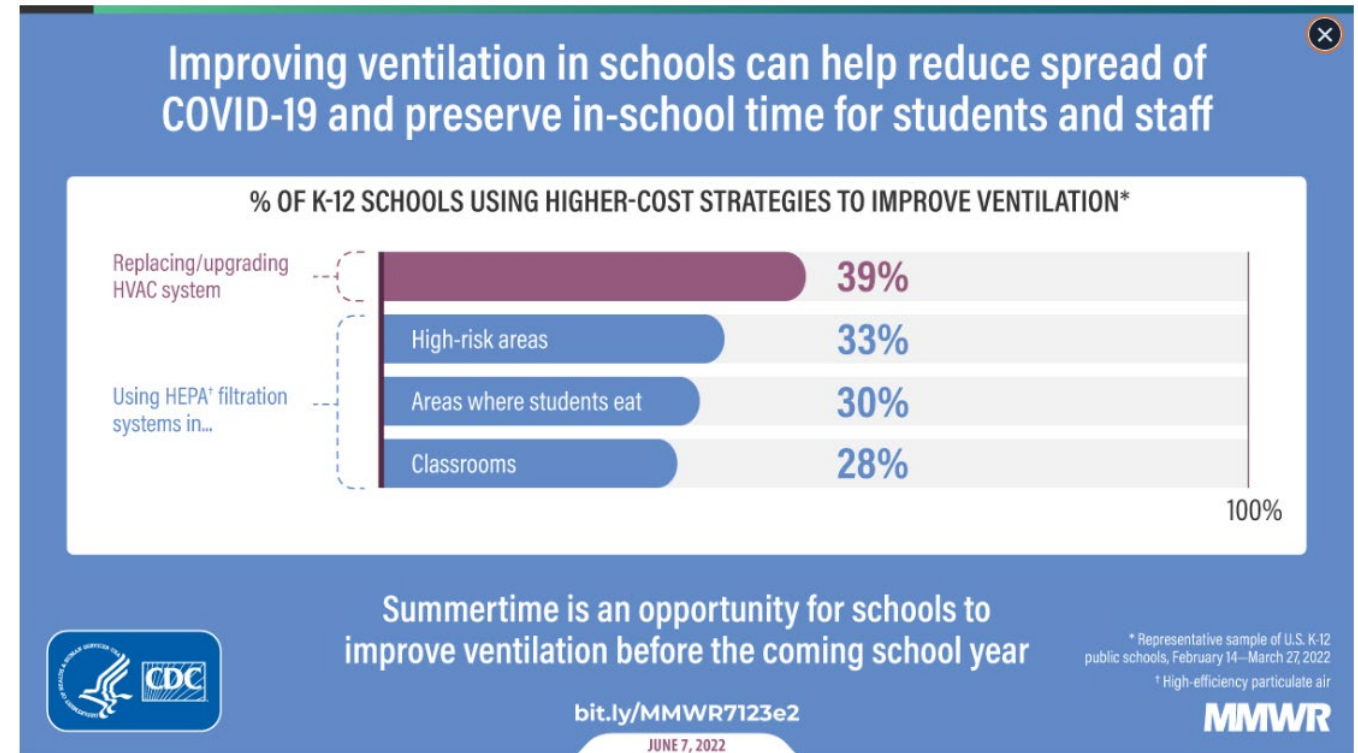
Ongoing response to COVID-19 cycle

Response (Surge)

A surge means rapid response by local and state public health.

- Increased supplies for testing, masking and medications.
- Increased masking, testing and social distancing efforts.

MDHHS
Michigan Department of Health & Human Services

Visit Michigan.gov/Coronavirus for current COVID-19 information.

Readiness (Pre-Surge)

A surge is expected due to a new variant, local outbreak, seasonal changes.

Expect increased illness severity and overwhelmed hospital capacity.

- Educate public regarding new risks.
- Ensure enough supplies of tests, masks and medications.
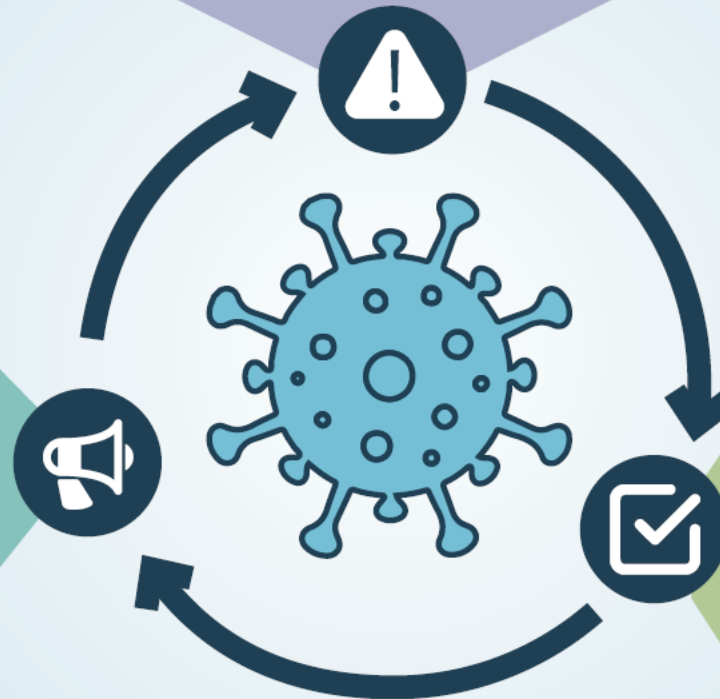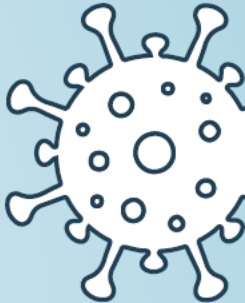
Recovery (Post-Surge)

Expect to remain in this phase for longer periods as COVID-19 evolves.

Monitor conditions that may lead to surges, such as a new variant.

- Encourage vaccines to decrease COVID-19 risks.
- Strengthen community support with local stakeholders.
- Empower community members to make best choices for individual situations.

Vaccines

Protect against severe outcomes
Vaccines and boosters are available for ages 5 and up.

Tests

Prevent spread
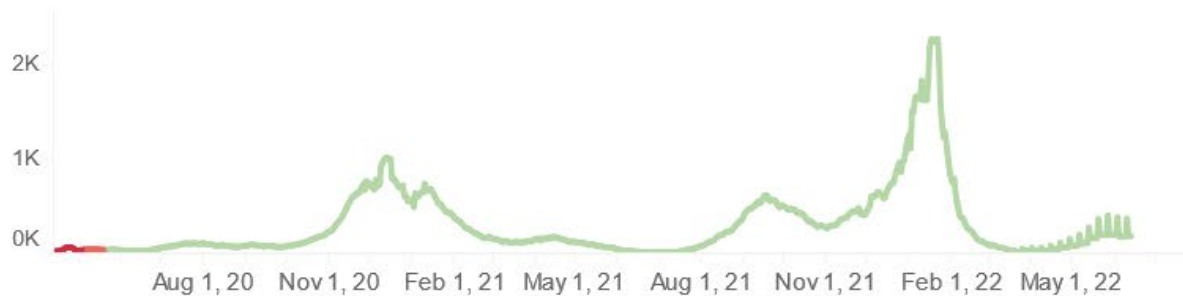Over-the-counter tests allow for testing at home; an important addition to on-site antigen and PCR testing.

Masks, Distancing & Ventilation

Prevent spread
People with symptoms, a positive test, or exposure to someone with COVID-19 should wear a mask. Masking may also be based on personal preference and informed by personal level of risk.

Treatment

Protect against severe outcomes
Oral antivirals and monoclonal antibodies can reduce the risk of hospitalization and death from COVID-19.

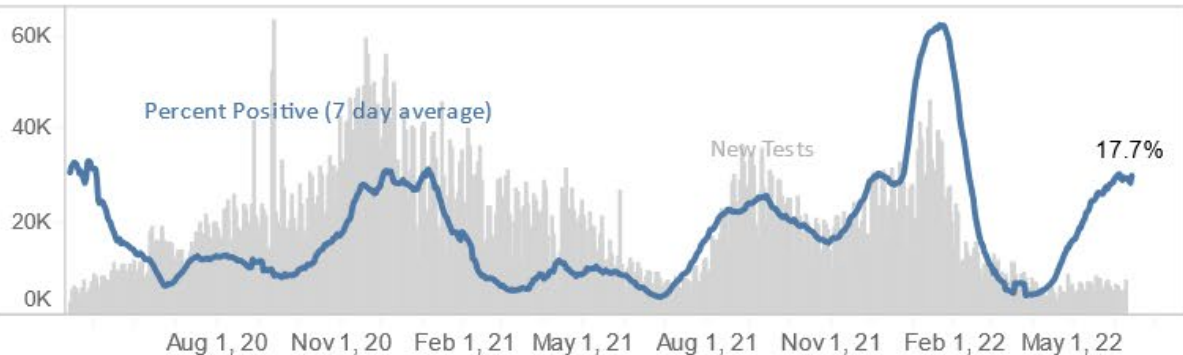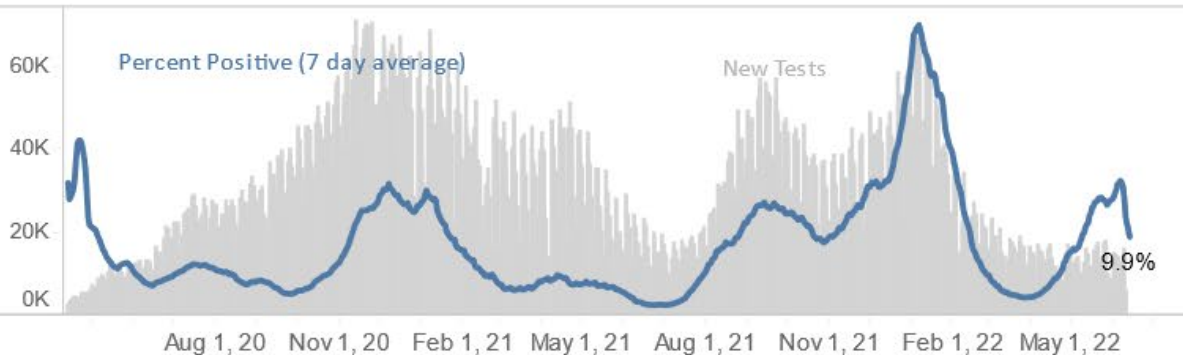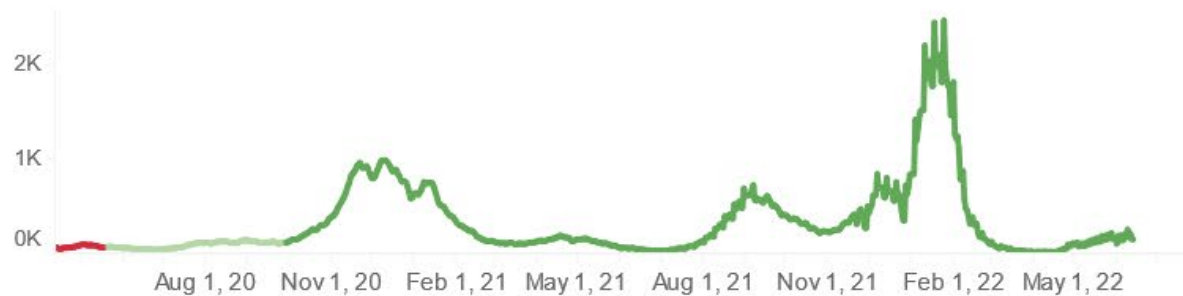**Protect Yourself, Protect Your Community**

APPENDIX

# State Comparisons: Ohio and Indiana

Ohio Confirmed New Cases / 1M (7 days average)

Indiana Confirmed New Cases / 1M (7 days average)

Percent Positive (7 day average)   New Tests   9.9%

Percent Positive (7 day average)   New Tests   17.7%

Mobility retails and recreational

Mobility retails and recreational

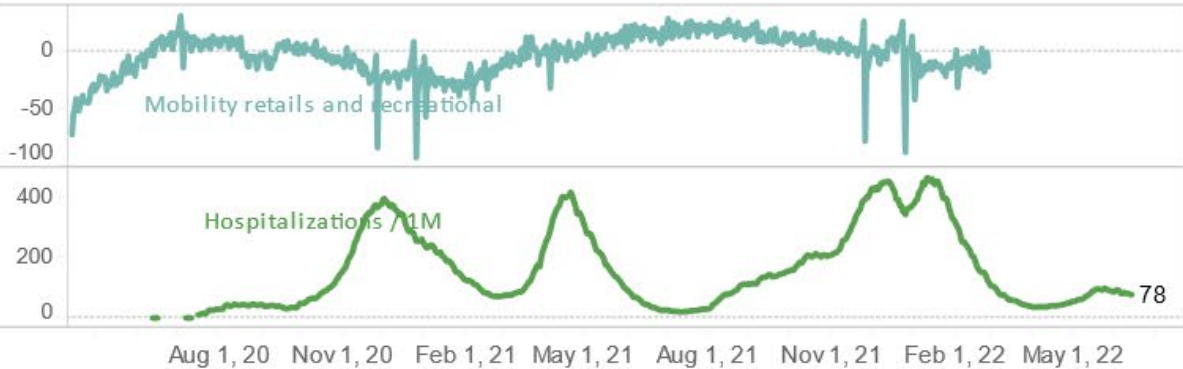Hospitalizations / 1M   63

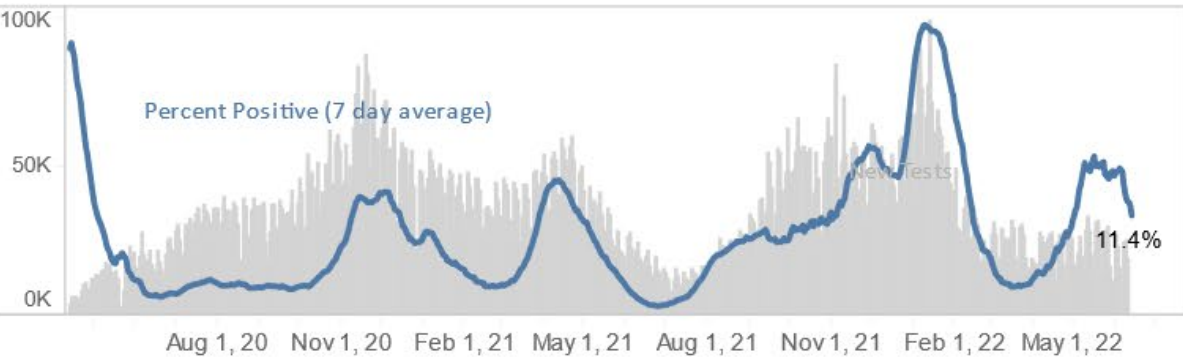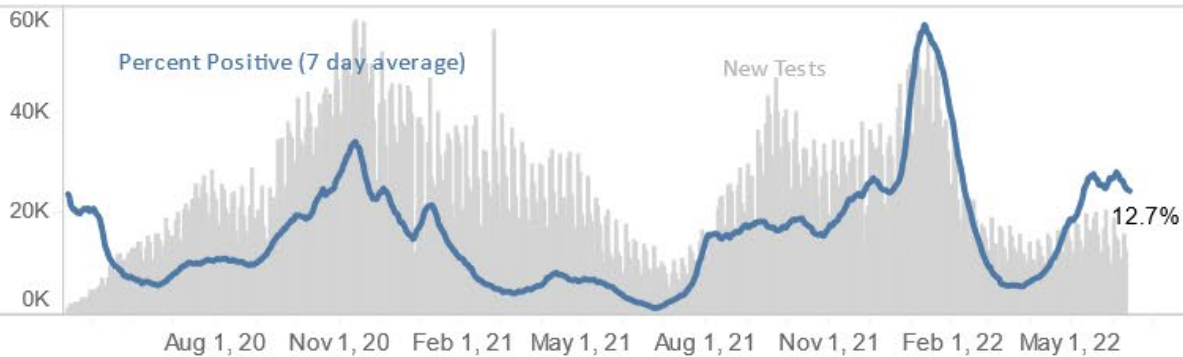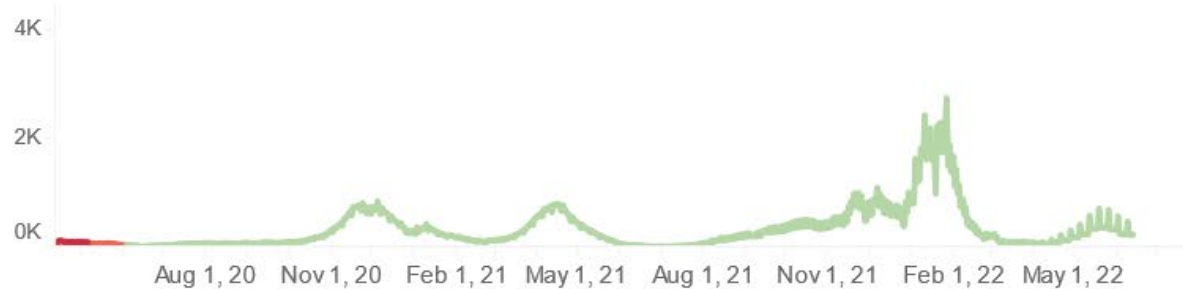Hospitalizations / 1M   49
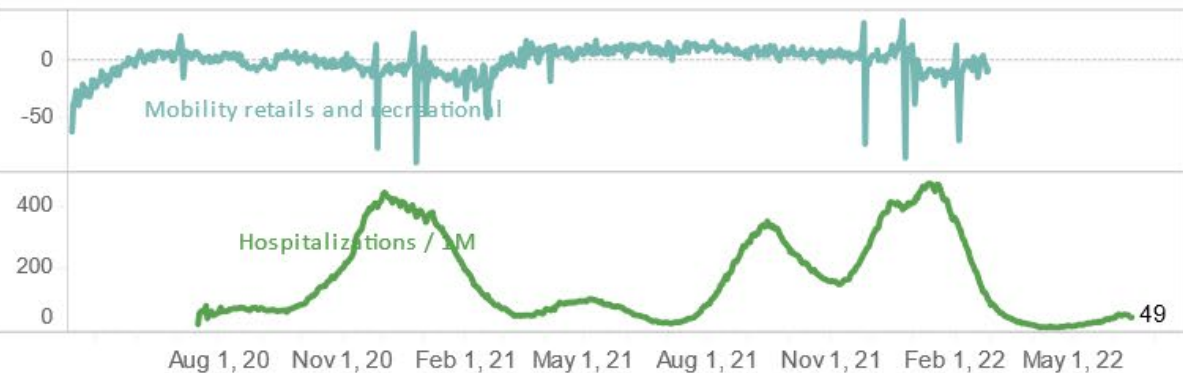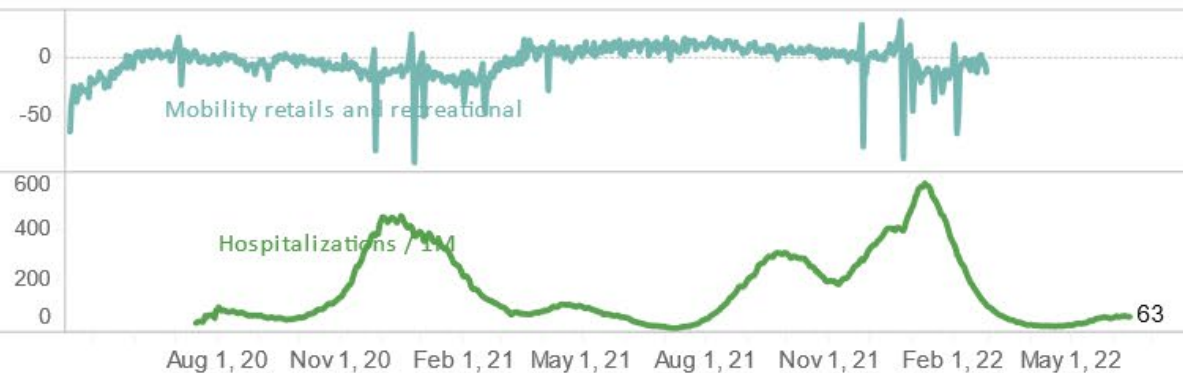
State Comparisons: Wisconsin and Michigan
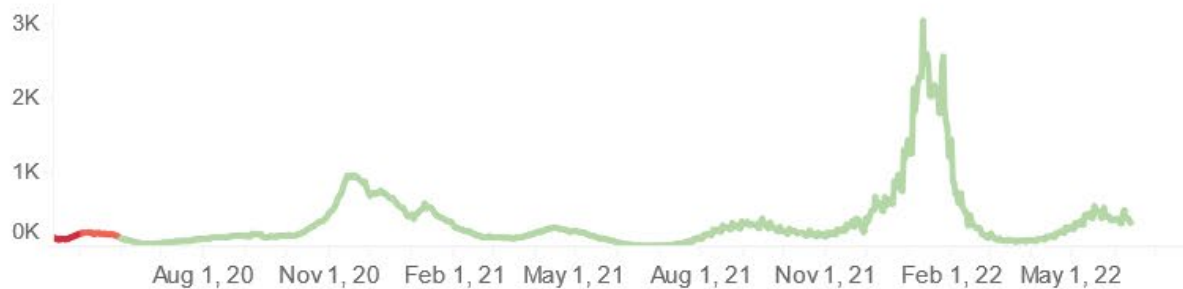

Wisconsin Confirmed New Cases / 1M (7 days average)
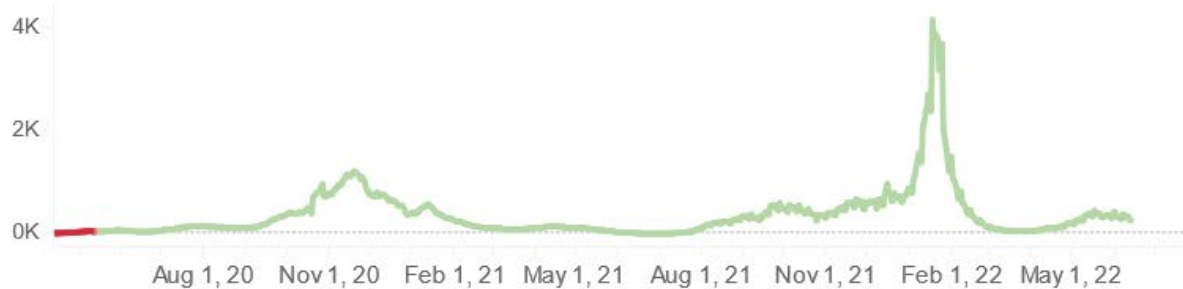
Michigan Confirmed New Cases / 1M (7 days average)

State Comparisons: Illinois and Minnesota
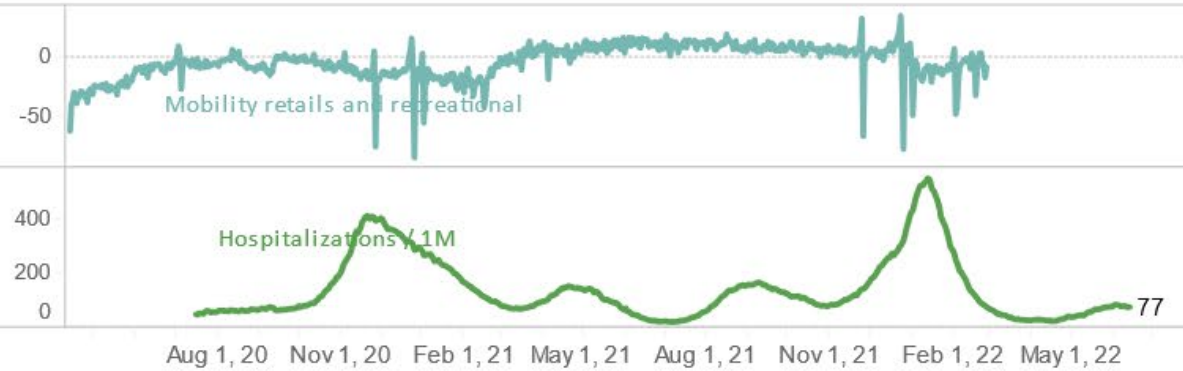

Illinois Confirmed New Cases / 1M (7 days average)

Minnesota Confirmed New Cases / 1M (7 days average)
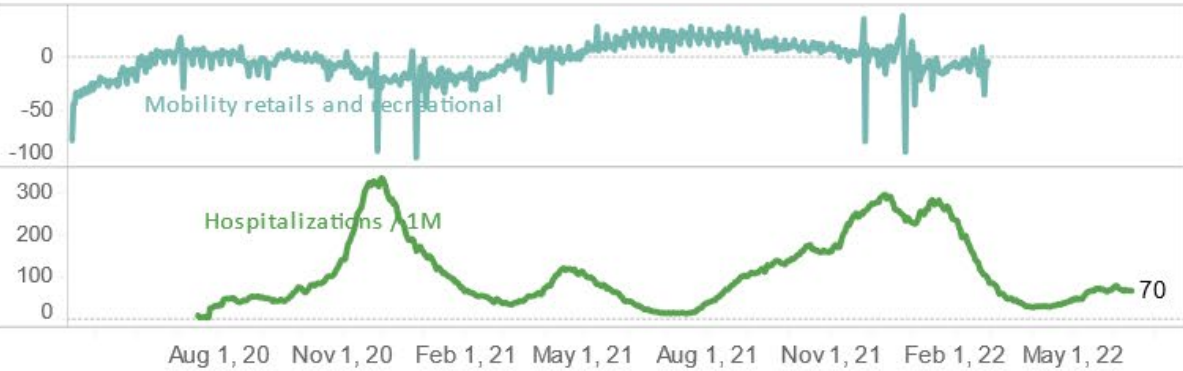
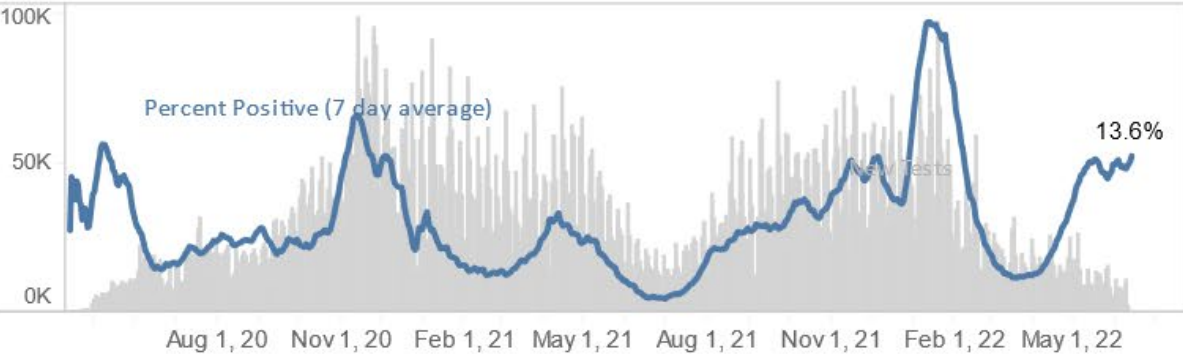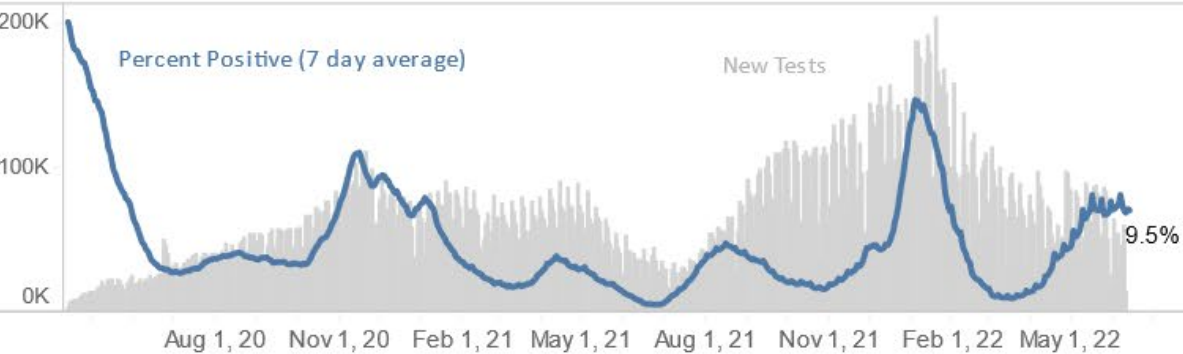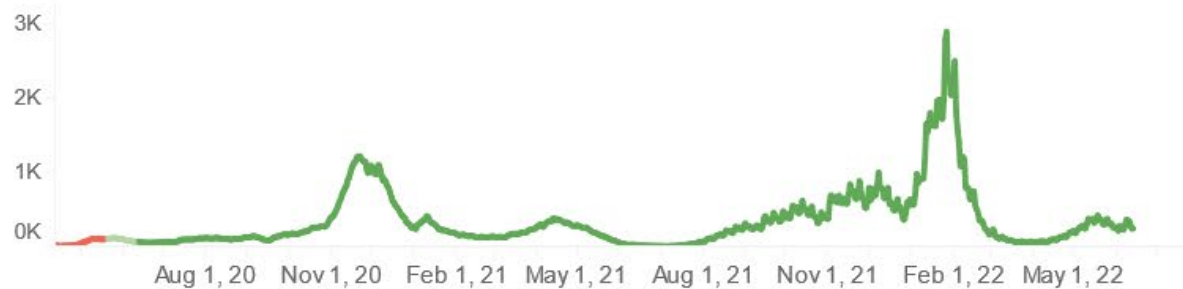# Michigan Lag-adjusted new COVID cases by onset date

New confirmed cases by onset actual and adjusted as of June 8, 2022 (-2 days)
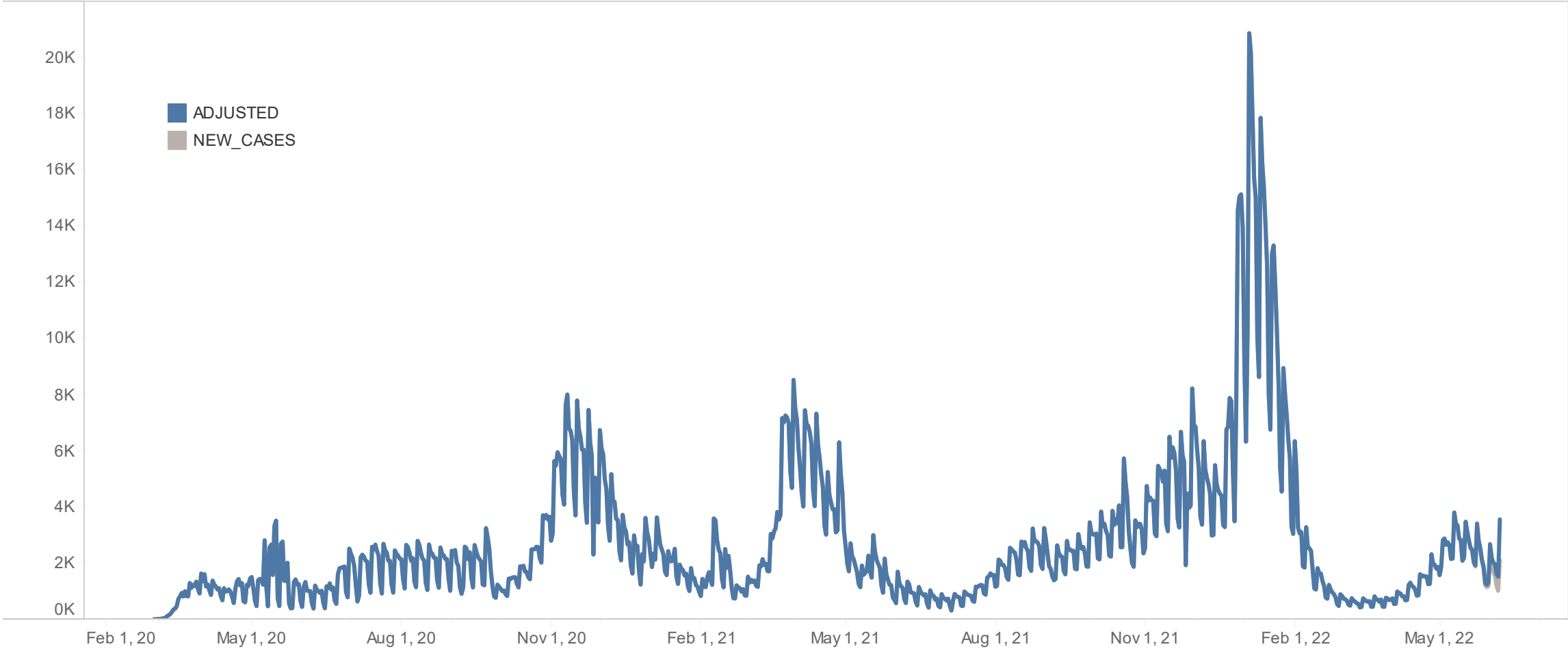
Michigan Lag-adjusted new COVID cases by onset date

New confirmed cases by onset actual and adjusted as of June 8, 2022 (-2 days)
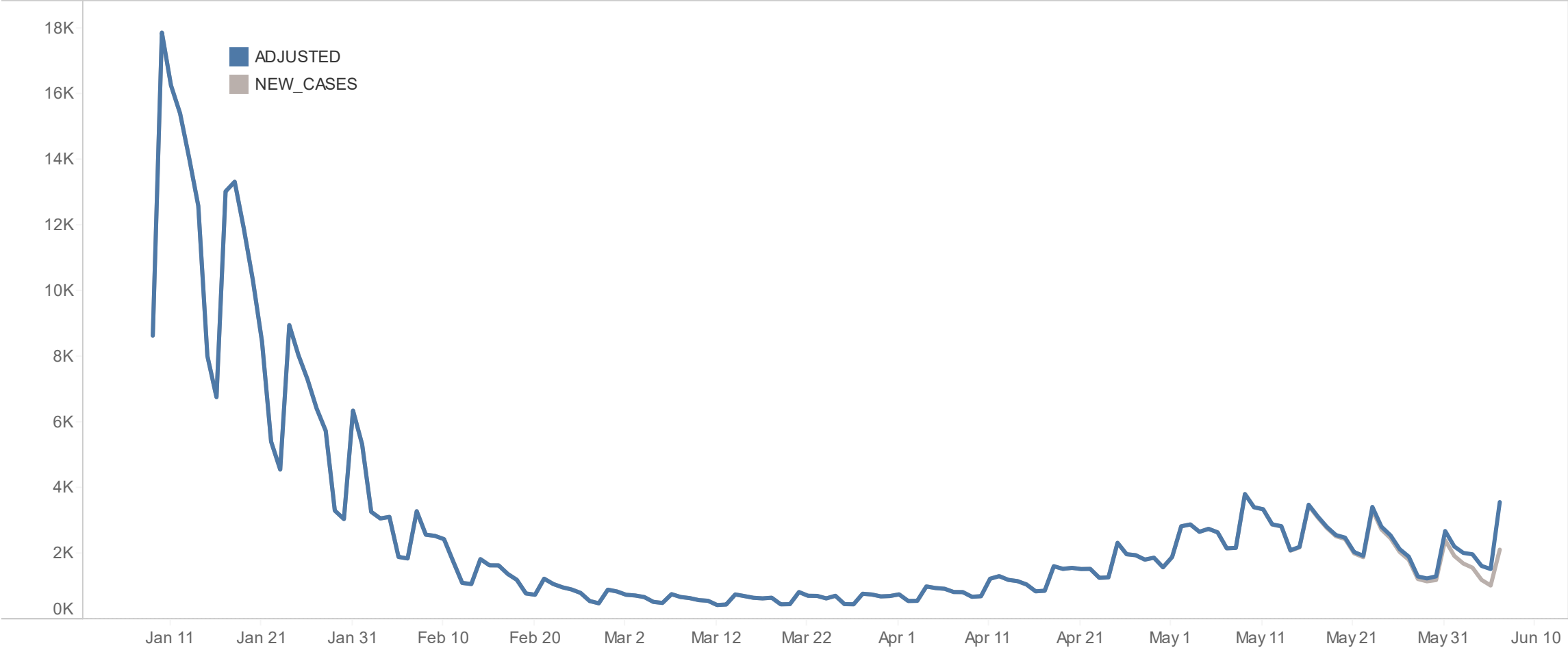
Case Rate Trends by Age Group

Daily new confirmed and probable cases per million by age group (7-day rolling average)
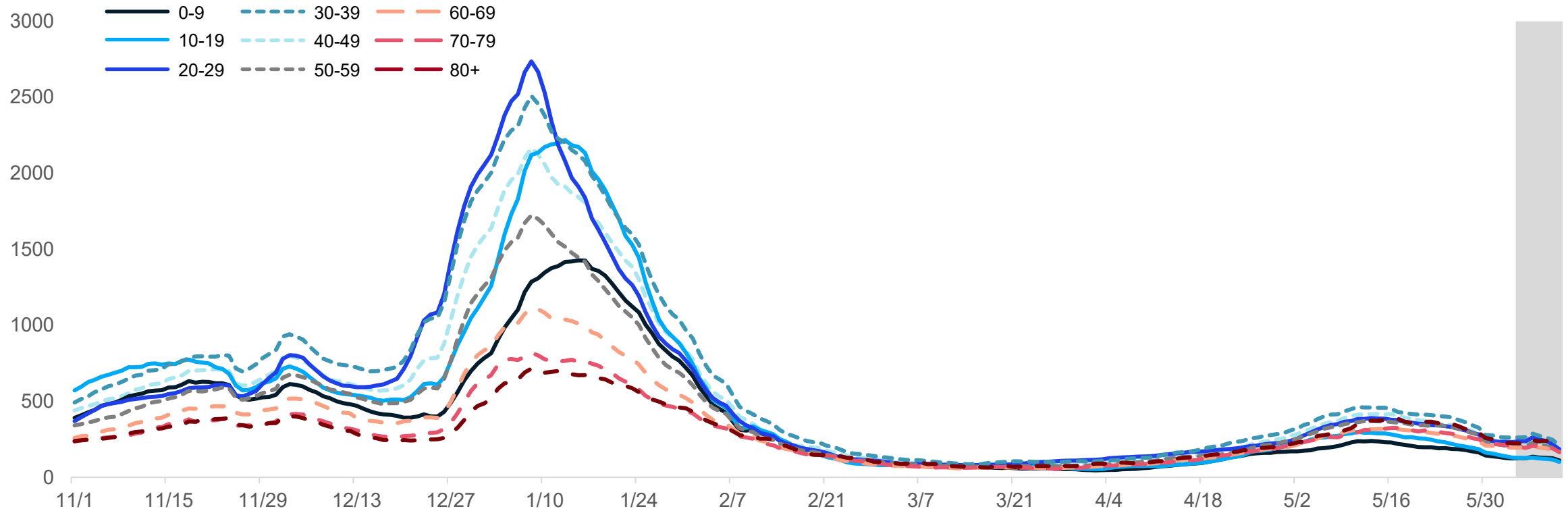
- Case rate trends for all age groups experienced a decrease over the last week

- Case rates by onset date for all age groups are between 124.5 and 262.4 cases per million (through 6/3/22)

- Case counts and case rates are highest for 30-39-year-olds this week, followed by 40–49-year-olds and 80+ age groups

Note: Case information sourced from MDHHS and reflects date of onset of symptoms
Source: MDHHS – Michigan Disease Surveillance System

Case Rates by Reported Racial and Ethnic Group

Daily new confirmed and probable cases per million (7 day rolling average) by race category

Legend: American Indian/Alaska Native, Black/African American, Asian/Pacific Islander, White

Race	Case Rate
American Indian/Alaskan Native	116.4
Asian/Pacific Islander	195.4
Black/African American	143.7
White	141.7
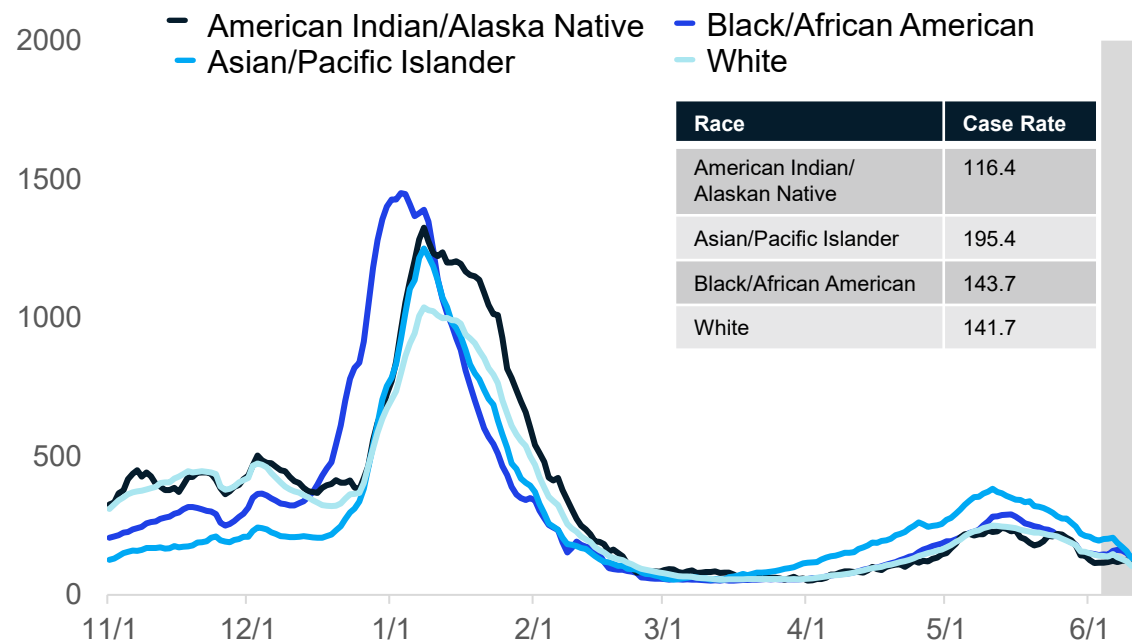
Daily new confirmed and probable cases per million (7 day rolling average) by ethnicity category

Legend: Hispanic or Latino, Not Hispanic or Latino

Race	Case Rate
Hispanic/Latino	141.5
Non-Hispanic	143.4
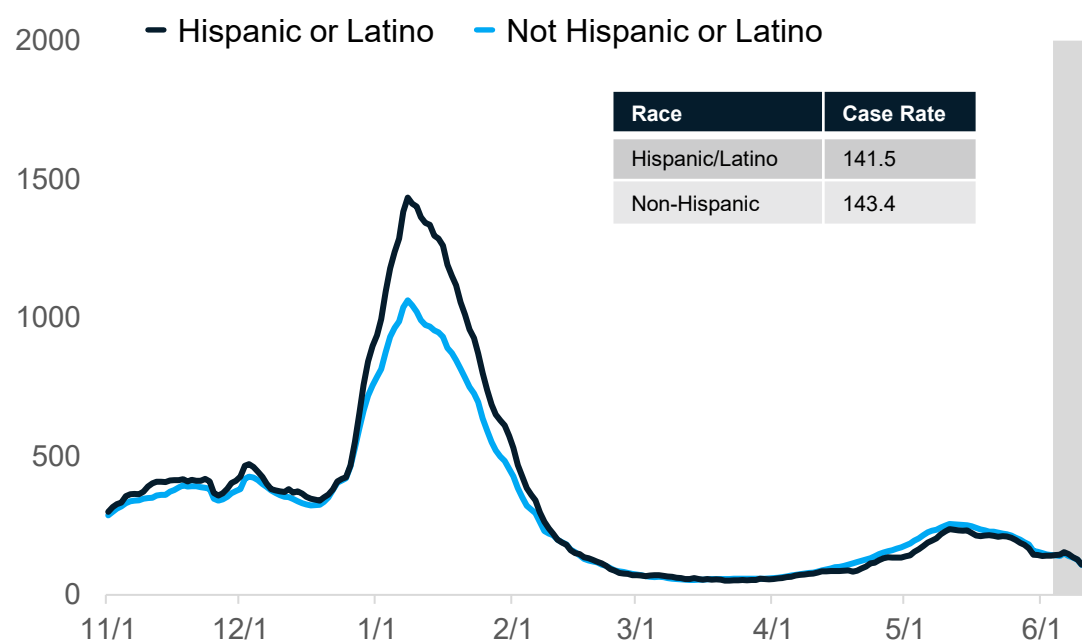
Updates since last week:

- Cases per million are decreasing at similar rate for all reported racial and ethnic groups

- In the past 30 days, 22.5% (↑ 0.2%) of race data and 28.1% (↑ 0.2%) ethnicity data was either missing or reported as unknown

Note: Case information sourced from MDHHS and reflects date of death of confirmed and probable cases.
Source: MDHHS – Michigan Disease Surveillance System

Case rate decrease in the school-aged population statewide

- Case rates in 5–18-year-olds are lower than rates in 19–50-year-olds
- Case rates among school-aged populations show signs of decline along with other age groups
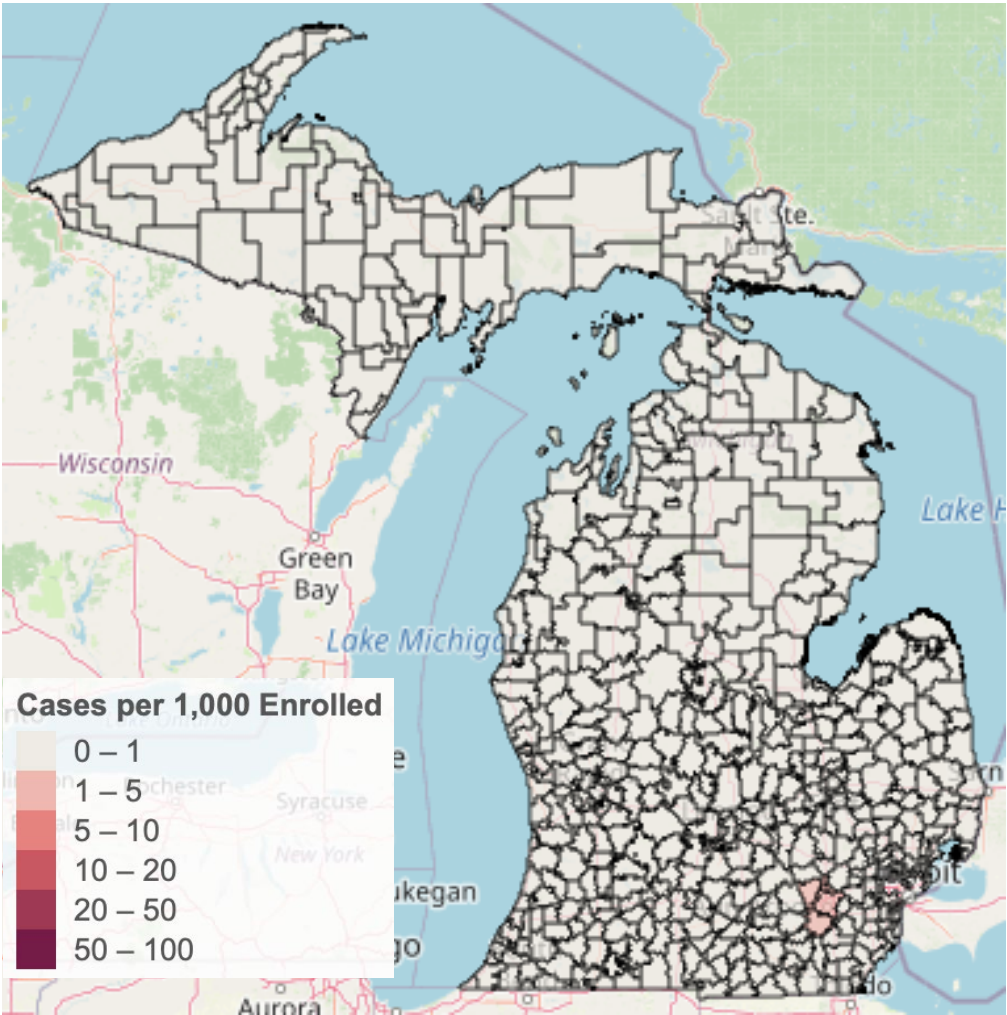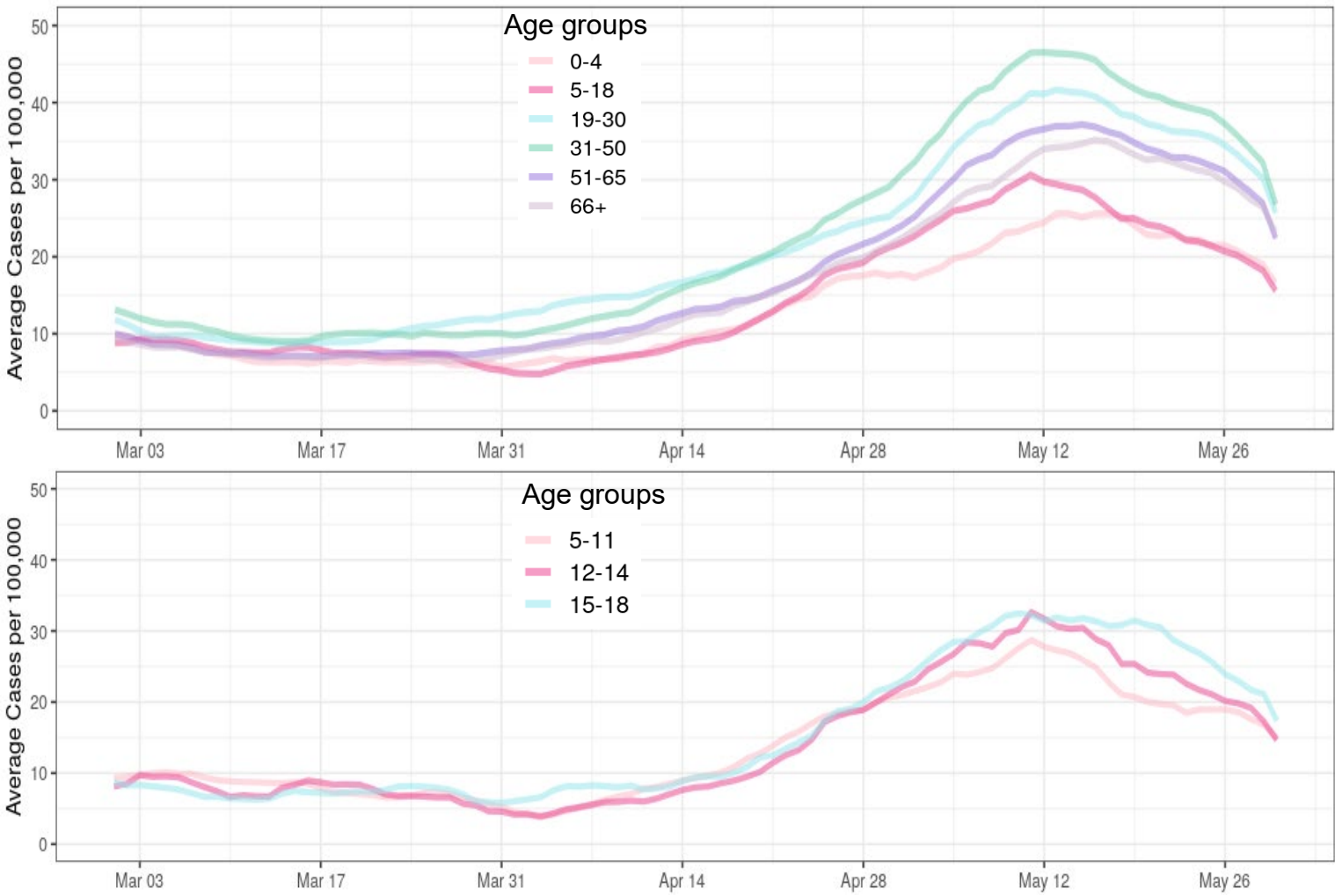
Sources: MDSS case data as of 6/13/2022 (data through 5/30/22), line charts use statewide age group population, map uses ISD enrolled populations from EOG mask tracker data.

Vital Infrastructure: K-12 school clusters and outbreaks, week ending June 9th

Number of reported outbreaks/clusters decreased since last week (176 to 141).

Region	Number of reported cases, # ■ # Ongoing - Excluding New ■ # New	Number of outbreaks	Range of cases per outbreak
Region 1	151 │ 0	16	1-64
Region 2n	0 │ 0	0	N/A
Region 2s	405 │ 59	57	3-49
Region 3	774 │ 2	31	2-112
Region 5	14 │ 0	2	4-10
Region 6	112 │ 3	21	1-20
Region 7	292 │ 0	14	4-69
Region 8	0 │ 0	0	N/A
Total	1,748 │ 64	**141**	**1-112**

Grade level	Number of reported cases, # ■ # Ongoing - Excluding New ■ # New	Number of outbreaks	Range of cases per outbreak
Pre-school - elem.	905 │ 41	89	1-66
Jr. high/middle school	204 │ 15	20	2-94
High school	633 │ 8	31	2-112
Administrative	6 │ 0	1	6
Total	1,748 │ 64	**141**	**1-112**

Many factors, including the lack of ability to conduct effective contact tracing in certain settings, may result in significant underreporting of outbreaks. This chart does not provide a complete picture of outbreaks in Michigan and the absence of identified outbreaks in a particular setting in no way provides evidence that, in fact, that setting is not having outbreaks.
NOTE (10/4): MDHHS adopted the new CSTE school cluster and outbreak definition which impacts how transmissions within school-sponsored settings are reported to the health department
Source: LHD Weekly Sitreps

Guiding Principles

To prioritize **equity** in each of the following objectives

01

Prevent death and severe outcomes

Prioritize uptake of vaccinations and booster doses.

Protect the most vulnerable

❖ Mitigate risks in congregate settings using all available tools.

Maximize early access to testing and therapeutics.

02

Protect health care capacity (from hospitals to first responders to LTFS)

Reduce community spread during a surge through all available tools.

Reduce severity of cases, need for ICU/ventilators through vaccines and therapeutics.

03

Keep vital infrastructure (schools, corrections) functioning safely, while planning for recovery

Establish a new normal at every phase of the pandemic.

❖ Utilizing all available tools and the concept of "risk budget".

Provide tools to the public to protect themselves.

❖ Including OTC testing and instructions for isolation and contact tracing.

MDHHS
Michigan Department of Health & Human Services

Understanding Personal and Household Risk

Protect yourself from COVID-19 by understanding levels of risk, practicing good hygiene and hand washing, staying home when sick, and staying up to date with vaccinations. Masking is a personal and local community choice. Know your risk; know that others may have a risk different from yours. Respect the choice.

Masking is a proven way to reduce your risk of COVID-19.

When making decisions about risk, consider the setting, your vaccination status and current level of community transmission in addition to the personal and family risk factors* noted below.

		Lower Risk Settings			Higher Risk Settings
		Outdoor Distanced Spaces (Parks, Trails, Large patios)	Outdoor Crowded Spaces (Concerts, Theme parks, etc...)	Indoor Distanced Spaces (Social distancing ability self-controlled)	Indoor Crowded Spaces (Poorly ventilated and/or social distancing not in personal control)
Lower Risk	Up to date on vaccine, without risk factors				
	Up to date on vaccine, with risk factors				
	Unvaccinated, without risk factors				
Higher Risk	Unvaccinated, with risk factors				

Up to Date on vaccine includes any booster doses as defined by the CDC. Additionally, individuals who have tested positive for COVID-19 in the past 90 days would fall into similar risk categories as those who are up to date on vaccination.

***Risk factors** include older adults (60+) and those who have serious chronic medical conditions like heart disease, diabetes or lung disease (at any age), and those who live in high-risk congregate settings (like nursing homes, corrections facilities and shelters). If you live with others who have risk factors, consider their health in addition to your personal health.

MDHHS
Michigan Department of Health & Human Services

Visit Michigan.gov/Coronavirus for current COVID-19 information.

When to Wear a Well-Fitting Mask

Please be respectful of others' choices.

MDHHS recommends mask use in the following settings:

During Isolation and Quarantine.
- Those with COVID-19 infection and their contacts should wear a mask when around others.

When you are in a congregate setting.
- Long term care, health care or correctional facility.

When you are in an area with a local or federal mask policy.
- Counties, schools, businesses or other settings may have mask policies.

Stay Home

Masks Required

You might also consider masking in these settings:

If you, or those around you, are at high risk for infection or severe disease.
- Immunocompromised or have other medical conditions that increase risk.
- Unvaccinated.

If you feel the risk of exposure is high.
- Crowded indoor settings; a potential for unvaccinated individuals.

If you simply feel more comfortable wearing a mask.